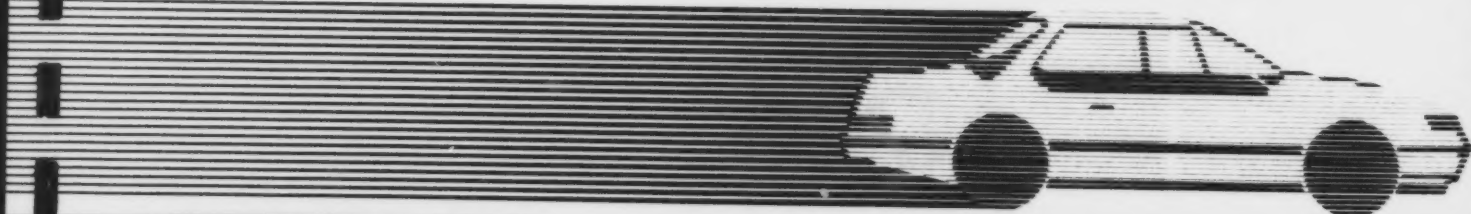




Transportation Energy
L'énergie dans les transports



Energy, Mines and
Resources Canada

Energie, Mines et
Ressources Canada

Canada

TRANSPORTATION ENERGY DATA BOOK

EDITION 4

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T4A/5237T

TRANSPORTATION ENERGY DATA BOOK
EDITION 4

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INTRODUCTION

The Transportation Energy Division is concerned with energy aspects of current and future trends in transportation systems, vehicles and transport fuels in Canada. The division develops policy advice, coordinates and manages research and development, and delivers programs relating to conservation and substitution of fuels in the transportation sector.

The purpose of this publication is to make available statistics on transportation sector energy demand, and data on the stock of vehicles and their activity which determines energy demand. This is the third edition and includes several new features. Conversion tables relevant to the data precede the first section. Information on provincial fuel taxes and prices are included in section 5(a). Section 5(c) graphically displays significant trends in automotive technology related to energy efficiency.

The Department has been actively promoting the use of propane and natural gas as vehicle fuels. Contributions to convert vehicles to these fuels and to establish public refuelling stations for natural gas have been administered by the Division for the past few years. The results of these programs are presented in Section 6.

The data presented here is compiled from many sources and is necessarily a summary or "snapshot" of what is available in some cases. Those interested in more detail should investigate the sources cited in the case of publicly available data, or for non-public data, should request further information from the Transportation Energy Division of EMR, 460 O'Connor Street, Ottawa, Ontario, K1S 5H3 or call (AC613) 995-9447.

1.0 TRANSPORTATION SECTOR ENERGY CONSUMPTION

a) ENERGY CONSUMPTION

As a proportion of total petroleum products consumed in Canada, the transportation sector's share has risen steadily over the past decade, with the exception of 1982 when this sector was affected, as were all others, by the general recession. The sector's share of the total petroleum product consumption* has increased from 47.65% in 1958 to 63.37% in 1986. (If the Energy Supply Industry's demand is excluded from the total demand, as is the case with E.M.R.'s IFSD model, the increase is from 52.05% to 68.75%). This is largely a result of fuel substitution and petroleum conservation efforts in the other energy-use sectors--the residential, commercial and industrial sectors-- and growth in the demand for transportation services. Transportation, which is virtually totally dependent on petroleum, does not have as wide a range of substitution options available as these other sectors do, although propane, compressed natural gas and alcohol fuels are emerging as viable alternatives. For this reason, the transportation sector has had to adjust to rapidly rising energy costs, which has encouraged vigorous energy saving practices and technological improvements in both the road and air modes.

Despite progress which has been made, the forecast is a continued rise in energy demand for this sector over the next decade.

The breakdown by fuel type for the period 1959-85 (Fig. 1.4 and Table 1.2) shows motor gasoline with the largest consumer demand. Diesel fuel holds second place, with light and heavy fuel oils in third and fourth places respectively, while jet turbo fuel comes fifth.

1973 saw the beginning of a steady decline in demand for light and heavy fuel oil as well as for kerosene. Demand for all fuel types except diesel decreased for the first time in 1981 and continued to decline through 1983. Since 1983, the demand for aviation fuels and diesel have been generally rising.

In 1985, road motor vehicles (Fig. 1.6 and Table 1.3) consumed 80.5% of the total energy used for transportation. Air transport accounted for 10%, rail for 5.3% and marine for 4.6%.

b) ROAD FUEL CONSUMPTION

Motor gasoline consumption (Table 1.4) steadily increased until 1981. Since then, it has been decreasing. The sharpest reduction in total motor gasoline consumption, witnessed in 1982, was primarily due to recessionary economic conditions. Total motor gasoline consumption has decreased 14.9% from 1980 through 1985. This decline can be attributed to slow economic recovery (accompanied by higher gasoline prices) and, to a lesser extent, to the increasing number of more fuel-efficient vehicles in the Canadian fleet.

*Excludes petrochemical feedstocks.

Although retail pump sales of motor gasoline have decreased since 1980, their share of Canadian motor gasoline consumption has slowly risen, moving from 81.9% in 1980 to 85.7% in 1985, which may reflect greater resistance to change in usage patterns in this sector, which is primarily patronised by personal use vehicles.

With the exception of 1975, and the recessionary years 1981 and 1982, the overall demand for diesel fuel has grown by 343.53% from 1958 to 1985, with 37.43% of that increase in the last decade. In looking at the demand by sector, while each sector has grown in terms of absolute demand, their relative share of the total diesel demand varies. The Public Administration sector's share of demand over that period has been small and generally tending downward, from about 6% in 1958 to about 4% in 1985. Industry's share peaked at about 30% in 1975 and has declined to 21.7% in 1985. However, this still represents an increase of about 6% over its share of the total in 1958 (15.4% to 20.7%). The Agricultural sector started with 12% of the demand in 1958, peaked at 15.7% in 1968 and declined to 8.9% in 1985, while the Transportation sector started with 66.7% of the demand, declined to 52.9% by 1975 and has gradually risen to 66.1% by 1985.

1985 gasoline sales by type (reported by Ethyl Canada, Fig. 1.7, Table 1.8) show regular leaded gasoline still dominating the market (in terms of a single fuel type) with 48.8% of sales, with regular unleaded at 37.8% and premium unleaded at 8.3%. However, 1985 marks the first year that unleaded gasoline sales together have outreached sales of leaded gas, which has lost almost 20% of its share of the market since 1977. This change reflects the increased number of new cars equipped with emission control systems requiring lead-free fuel present in the Canadian fleet.

Total gross sales of gasoline to road motor vehicles in Canada (Table 1.9) decreased by 11.7% in 1982 to 32,584 million litres. While no conclusions can be drawn for 1983, 84 or 85 as Statistics Canada and Ethyl Canada both reported only partial information, in view of the decrease in total gasoline consumption, it can safely be assumed that gross sales of gasoline also decreased in these years, albeit by a smaller proportion.

2.0 RAIL

The railways' share of total transportation energy consumed has varied only marginally since 1978, remaining around 5% (Table 1.3), reflecting variations comparable to the transportation sector as a whole.

Although the number of passengers carried by railways decreased .6% in 1984, passenger-km reported increased 6.7%, indicating a rather substantial increase in the average distance travelled per passenger. Freight carried by rail in 1984 totalled 288.2 million metric tonnes, a 15.4% increase over the previous year, while tonne-km of traffic only increased 12.7%, indicating a slight reduction in the average hauling distance for freight.

When analyzed over a longer period of time, it should be noted that the average length of freight haul remains almost constant. Thus, while freight has increased by 4.6% since 1978, tonne-km. have increased by 4.7%.

The small variations in rail traffic combined to produce a net change in fuel consumption of about 128.4 thousand litres, up 6.3% from 1983 (Table 2.1).

3.0 AIR

Air travel is the major mode of passenger transport for long distance trips in Canada and the industry has been seriously affected by rising fuel costs. From 11.5% of operating costs in the pre-OPEC price-control days of 1973, fuel costs rose to 26% of operating costs in 1981 (Table 3.5). For many international air carriers during the 1980's, fuel costs reached as high as 30% of operating costs. The Air industry's response to this was to enter a vigorous program of energy management and conservation measures, including improved maintenance and operating procedures, retrofitting new engines and acquisition of newer, more efficient aircraft. As shown in Table 3.4, the older and less efficient DC8's and DC9's are gradually being phased out and are being replaced with more efficient Boeing 737's and 767's, as well as widebody Loughheed 1011's and Douglas DC10's.

These measures made a significant contribution to the 8.5% decrease in demand for Jet A and B fuels which is seen between 1979 and 1984. The 1979 peak demand for these fuels was due, in part, to tankering of low-priced Canadian jet fuel during widespread shortages outside Canada.

It is worth noting that between 1973 and 1984, the demand for Jet B fuel (which is 70% naptha-based) declined from 58.9% to 26% of the total demand for aviation fuel, while Jet A fuel (which is Kerosene based) increased its share from 34.3% to 69.9%. Aviation Gas went from 6% of the total to 4.1%. Overall demand rose by 22.2% during this period.

4.0 MARINE

Because of the disaggregate nature of the Canadian marine system and its small share in total transportation energy consumption, there is only limited data available on fuel consumption for this sector, as can be seen from the tables in section 4. These are compiled from a census of Canadian-domiciled water carriers.

The Marine sector's share of total petroleum-based transportation energy consumed has declined steadily from a peak of 10.91% in 1959 to 4.48% in 1985. This represents not only a relative decline in terms of market share, but also an absolute decline over the period as well, with the demand falling from 81,361 terajoules in 1959 to 74,133 Tj. in 1985. This is the only sector which does show an absolute decline in demand over the period.

While domestic loadings/unloadings have risen from 40.8 million short tons in 1960 to 68.6 million tons in 1984 (down 24.8% from a 1980 peak of 91.2 million short tons), without any data on capacity utilization it is difficult to attribute the decline in energy demand to more efficient energy-use practices other than improved capacity usage rates. However, improvements in marine engine efficiency and hull design have certainly contributed - it is difficult to imagine that the fleet averaged less than 59% capacity utilization in 1960, which would be the case if increased utilization were the sole factor involved in the decrease in energy demand. The assumption of a fairly significant technological impact is supported by the fact that the share of diesel fuel in domestic marine energy consumption increased from 32.25% in 1981 to 46.6% in 1985 (with a corresponding drop in the use of heavy fuel oil) despite the higher price of marine diesel fuel versus marine heavy fuel oil (In the same period, the share of diesel fuel in foreign marine consumption remained almost constant at about 20%).

Domestic marine freight traffic has been decreasing since its peak in 1980 (see Tables 4.2 and 4.3) as a result of the economic slowdown. Total traffic at Canadian ports declined by 23.7% between 1980 and 1982 to 65.9 million metric tonnes. Reduced flows of iron ore, crude oil, gasoline, and fuel oil accounted for more than half of the decline in tonnage. Domestic traffic decreased by over 24%, from 82.7 to 62.23 million metric tonnes, between 1980 and 1984.

5.0 ROAD

a) MOTOR VEHICLE SALES/REGISTRATIONS

With a registered fleet of 11.1 million passenger cars and 3.1 million trucks in 1985 (Table 5.1), road transportation constitutes the largest single user of petroleum products in Canada. The potential energy savings in this sector, through better vehicle usage and improved vehicle technology, remains greater than that in any other area.

New car sales, which peaked at 1,003,008 in 1979 (Table 5.3), resumed their increase in 1983, after dropping by nearly 29% in the years 1981 and 1982 due to general economic conditions. After an 18.2 percent increase in 1983, followed by 15.2 and 17.09% increases in 1984 and '85, annual new car sales have now resumed their pre-1980 level. While a sales breakdown by vehicle size (Table 5.4) indicates little to no change in shares of sales by vehicle size in 1984, 1985 saw a dramatic increase in sales of compacts and subcompacts, creating a drop in mid- and full-size car sales. This change was mirrored in the foreign car share of the market rising from 23.8% in 1984 to 31.1% in 1985, reflecting the fact that the majority of imports are compacts and subcompacts.

General Motors remains the largest manufacturer in terms of sales, with 37.3% of the market, with Ford in second place at 18.2%, just ahead of Chrysler's 17.1%.

Annual sales of trucks, which had decreased from 375,727 units in 1979 to 169,697 in 1982, increased by 15.5% in 1983, 40.5% in 1984,

and 26.5% in 1985, reaching 348,365 units (Table 5.6). Sales of light trucks, which represented 91.6% of truck sales in 1983, fell to 90.5% in 1985, while the heavy truck share decreased from 6.1% to 5.9%.

The diesel-powered percentage of new truck sales increased to 13.2% in 1985 due to the continued increases in sales of diesel-power light and heavy trucks.

b) FUEL TAXES AND FUEL PRICES

The price of fuel varies among provinces due to differing costs distribution costs, provincial taxes and competition. In addition, prices can vary substantially within a province when price wars flare up. Representative gasoline prices, as shown in table 5.19, indicate prices tend to be highest in Newfoundland and Quebec and lowest in Saskatchewan and Alberta.

These differences are largely due to road taxes, which range from a 30% ad valorem tax in Quebec to no tax in Saskatchewan and Alberta. Fuel tax rates are shown in tables 5.13 and 5.15. Compressed Natural Gas is not subject to road tax in any of the provinces and propane is exempt from road taxes in Ontario, Saskatchewan, Alberta and British Columbia.

Prices per kilogram of natural gas are indicated in table 5.16, with Quebec subject to the highest prices. Representative prices for propane are listed in table 5.17 and are compared to gasoline. Both natural gas and propane prices are substantially lower than gasoline prices in many parts of Canada and can be cost-effective, even after conversion costs, for many categories of users.

In general, fuel prices have risen substantially over the past 5 years as Canada has gradually allowed domestic crude oil prices to increase to international levels. Table 5.18 and Figure 5.17 show that of all the price indices of private transportation and its components, fuel has increased at the fastest rate since 1979. The vehicle-purchase index has remained consistently below the CPI, while maintenance has been above, relative to the 1981 base year.

c) AUTOMOTIVE TECHNOLOGICAL CHANGES TO 1985

During the review of the voluntary Fuel Consumption Standards Program, data was analysed to determine fleet characteristics such as average fuel economy, weight, market share fractions and technological characteristics (e.g. front wheel drive, carburetion systems). The raw data was collected from manufacturer's submissions to Transport Canada under the Fuel Consumption Standards program.

All data from 1978 through 1982 is final. The 1983 data is virtually complete, missing only the final sales figures from Volvo. Only Chrysler had submitted final sales figures for 1984 and these are included in the calculations. All other 1984 sales and all of the 1985 calculations are based on manufacturer's estimated sales.

Figure 5.18 shows an improvement in fuel efficiency from 1979 to

1982, with little or no change in efficiency from then through to 1985. Figure 5.19 depicts average vehicle weight, which follows a pattern similar to that for fuel efficiency seen in Figure 5.18. Figure 5.20 indicates a massive switch to front wheel drive: from less than 20% of total sales in 1978 to about 65% in 1985. In Figure 5.23 we see a noticeable increase in the use of fuel injection, since 1983, compared to carburetion systems.

6.0 ALTERNATIVE FUELS

The Propane Vehicle Program was introduced in June, 1981 and was terminated March 31, 1985. It is estimated that when the program began there were approximately 2,000 vehicles operating on propane in Canada. According to an industry survey carried out by EMR in October 1984, the number had risen to 80,000 propane-powered vehicles. By March 31, 1986, the propane-powered fleet was estimated to be 110,000 vehicles, which is generally regarded as a conservative figure.

In addition to providing a financial incentive of \$400 per propane vehicle conversion, the federal government endorsement enhanced the credibility of propane as an acceptable alternative fuel for vehicles.

The target for the Propane Vehicle Program target was set at 90,000 vehicles. When all the claims were processed, contributions had been paid out for a total of some 71,000 vehicles. During the final month of the almost 4 year program, applications were received for 15,000 vehicles. Program statistics indicate that the manufacture/wholesale sector submitted the most claims, followed by the service industries, taxi companies and trucking companies respectively. The vehicle types most commonly converted under the program were pick-up trucks, followed by vans and automobiles.

The major reason for the total number of propane vehicles in Canada being higher than the number of grants which have been paid is that the eligibility criteria of the program were not expanded to include the conversion of non-commercial and dual-fuel vehicles (vehicles which can operate on either propane or gasoline) until April, 1984. Before that date, many of the dual-fuel conversions had taken place but were not eligible for the contribution under the original criteria.

Figure 6.2 indicates that as of March 31, 1986 some 71,008 grants had been paid out to vehicle owners. As the figures show, over 90% of these were for single-fuel only vehicles and less than 10% went toward dual-fuel conversions.

Figure 6.3 indicates that less than 10% of all vehicles receiving grants were converted to propane by the original equipment manufacturers.

Figure 6.4 shows pickup trucks, followed by vans and automobiles, as being the most common types of vehicles to be converted. Ontario alone accounted for 46% of the conversions, while Alberta added almost 24% and B.C., with the Northwest Territories and the Yukon, 20%. The remaining 10% was split almost evenly between the mid-western and the eastern provinces, as shown in Figure 6.5.

The Natural Gas Vehicle Program, which runs from February 5, 1983 to March 31, 1987, provides a contribution of \$500 to assist in vehicle conversions. As of August 31, 1986, 9,585 owners had received grants. Automobiles accounted for 45% of conversions and pickups for 27%, as shown in Figure 6.6. Most of the vehicles were converted to have a dual-fuel gasoline/natural gas capability.

British Columbia, with 39% of grants, has generated most of the conversion activity, reflecting the strong support which was given to the natural gas program by the provincial government. As may be seen in figure 6.8, Quebec has been quite active too, claiming just over 31% of the applications. Under this program, Ontario, which accounted for close to half of the contributions paid out for vehicles converted to propane conversions only ranks third, with about 23% of the grants.

The Natural Gas Fuelling Station Program provides contributions of up to 50 thousand dollars to establish new natural gas distribution stations. As of August 1, 1986, 175 applications had been approved. Figure 6.9 shows a total of 82 operating stations, 35 of which are in British Columbia. Approval has been granted for 36 applications from stations in Quebec, many of which are expected to be constructed in the near future.

CONVERSION FACTORS
LINEAR MEASURES

TO OBTAIN	INCHES	FEET	YARDS	MILES	MILLIMETRES	CENTIMETRES	METRES	KILOMETRES
FROM:	MULTIPLY BY:							
INCHES	1	0.08334	0.02778	0.00001578	25.4	2.54	0.0254	0.0000254
FEET	12	1	0.3333	0.0001893	304.8	30.48	0.3048	0.0003048
YARDS	36	3	1	0.0005681	914.4	91.44	0.9144	0.0009144
MILES	63360	5280	1760	1	1609344	160934	1609	1.609
MILLIMETRES	0.03937	0.003281	0.001094	0.0000006215	1	0.1	0.001	0.000001
CENTIMETRES	0.3937	0.03281	0.01094	0.000006215	10	1	0.01	0.00001
METRES	39.37	3.281	1.094	0.0006215	1000	100	1	0.001
KILOMETRES	39370	3281	1094	0.6215	1000000	100000	1000	1

Prefixes can be used to change the value of a measurement unit.
Preferred practice is to use prefixes that change the value by 1000.
Commonly used prefixes are:

Prefix	Value Change	Symbol	Factor
peta	$\times 1,000,000,000,000,000$	P	10^{15}
tera	$\times 1,000,000,000,000$	T	10^{12}
giga	$\times 1,000,000,000$	G	10^9
mega	$\times 1,000,000$	M	10^6
kilo	$\times 1,000$	k	10^3
milli	$\times 0.001$	m	10^{-3}

Others are:

hecto	$\times 100$	h	10^2
deca	$\times 10$	da	10
deci	$\times .1$	d	10^{-1}
enti	$\times .01$	c	10^{-2}

1 megalitre (ML) = 1,000,000 litres (l) = 10^3 m^3 = 1,000 cubic metres
1 gigalitre (GL) = 1,000,000,000 litres (l) = 10^6 m^3 = 1,000,000 cubic metres
1 B.t.u. = 1.054615×10^3 joules = 1.054615 kJ
1 square mile = 2.59 square kilometres = 259 hectares
1 barrel (crude Canadian average) = 0.1346 metric tonnes (crude Canadian average)
1 barrel of Oil Equivalent = 5.8×10^6 B.t.u.
1 million tons of Oil Equivalent (MToe) = 3.968×10^{13} B.t.u.

CONVERSION FACTORS CUBIC MEASURES										
TO OBTAIN	IMPERIAL PINT	IMPERIAL QUART	IMPERIAL GALLON	AMERICAN GALLON (LIQ)	CUBIC INCH	CUBIC FOOT	CUBIC YARD	LITRE	CUBIC METRE	PETROLEUM BARREL
FROM:	MULTIPLY BY:									
IMPERIAL PINT	1	0.5	0.125	0.1501	34.67	0.02006	0.000743	0.5682	0.0005682	0.003574
IMPERIAL QUART	2	1	0.25	0.3002	69.35	0.04013	0.001486	1.1365	0.001365	0.007148
IMPERIAL GALLON	8	4	1	1.201	277.4	0.1605	0.005944	4.546	0.004546	0.02859
AMERICAN GALLON (LIQ)	6.662	3.331	0.8327	1	231	0.1337	0.004951	3.785	0.003785	0.02381
CUBIC INCH	0.02884	0.01442	0.003605	0.004329	1	0.0005787	0.00002143	0.01639	0.00001638	0.000103
CUBIC FOOT	49.84	24.92	6.23	7.48	1728	1	0.03704	28.32	0.02832	0.1781
CUBIC YARD	1346	672.7	168.2	201.9	46.66	27	1	764.5	0.7645	4.81
LITRE	1.76	0.88	0.22	0.2642	61.02	0.03532	0.001308	1	0.001	0.006289
CUBIC METRE	1760	880	220	264.2	61024	35.31	1.308	1000	1	6.289
PETROLEUM BARREL	279.8	139.9	34.97	42	9701	5.614	0.2079	159	0.159	1

ENERGY CONVERSION				
FUEL TYPE	HIGHER HEATING VALUE (GROSS)		LOWER HEATING VALUE (NET)	
	NI/L*	NI/Kg	NI/L*	NI/Kg
Ethane	21.18	47.48	19.21	43.08
Propane	25.53	50.25	23.50	46.26
Butane	28.62	49.01	26.41	45.23
LPG	27.12	52.66	25.08	48.71
Crude Oil	38.51	44.62	36.23	41.98
Motor Gasoline	34.66	47.41	32.44	44.38
Kerosene	37.68	46.98	35.39	44.13
Diesel	38.68	46.38	36.48	43.74
Light Fuel Oil	38.68	46.38	36.48	43.74
Heavy Fuel Oil	41.73	48.38	39.64	45.93
Aviation Gasoline	33.52	45.30	31.28	42.27
Aviation Turbo Fuel	35.93	44.52	33.63	41.67
Natural Gas-Liquid		55.13		49.64-
Natural Gas-Gas (NI/M)	38.02		34.23	
Electricity (NI/Kwh)		3.60		3.60

*This value is equal to terajoules (TJ) per Megalitre (ML)

CONVERSION FACTORS VOLUME TO MASS					
TO OBTAIN	POUNDS	LONG TONS	SHORT TONS	KILOGRAMS	TONNES
FROM:	MULTIPLY BY DENSITY TIMES:				
IMPERIAL GALLONS	10*D	0.004464*D	.005*D	4.536*D	.004536*D
AMERICAN GALLONS	8.327*D	0.003717*D	.004164*D	3.776*D	.003776*D
BARRELS (PETROLEUM)	349.7*D	.1561*D	.1748*D	158.6*D	.1586*D
LITRES	2.200*D	.0009821*D	.0011*D	.9977*D	.0009977*D
CUBIC METRES	2200*D	0.9821*D	1.1*D	997.7*D	.9977*D

D = Density in Kg/L

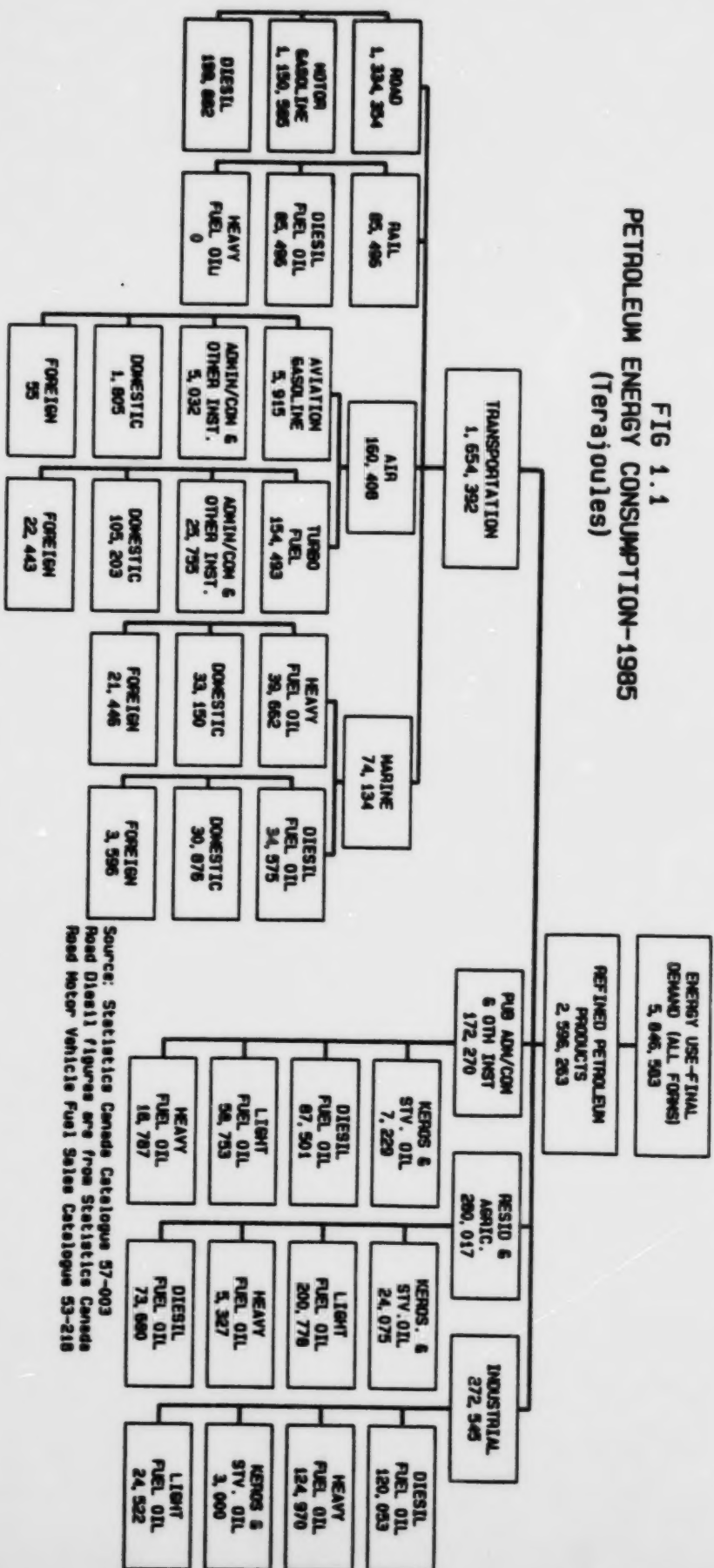
Average Densities

Propane	0.508
Butane	0.584
LPG	0.515
Motor Gasoline	0.731
Distillate	0.834
Bunker Fuel	0.986
Crude Oil	0.865

Note: In order to convert from Mass to Volume
Multiply this factor by the density and
Divide the mass by this number.

CONVERSION FACTORS MASS					
TO OBTAIN	POUNDS	LONG TONS	SHORT TONS	KILOGRAMS	TONNES
FROM:	MULTIPLY BY:				
POUNDS	1	0.0004464	0.0005	0.4536	0.0004536
LONG TONS	2240	1	1.12	1016	1.106
SHORT TONS	2000	0.8928	1	907.2	0.9072
KILOGRAMS	2.205	0.0009842	0.001102	1	0.001
TONNES	2205	0.9842	1.1023	1000	1

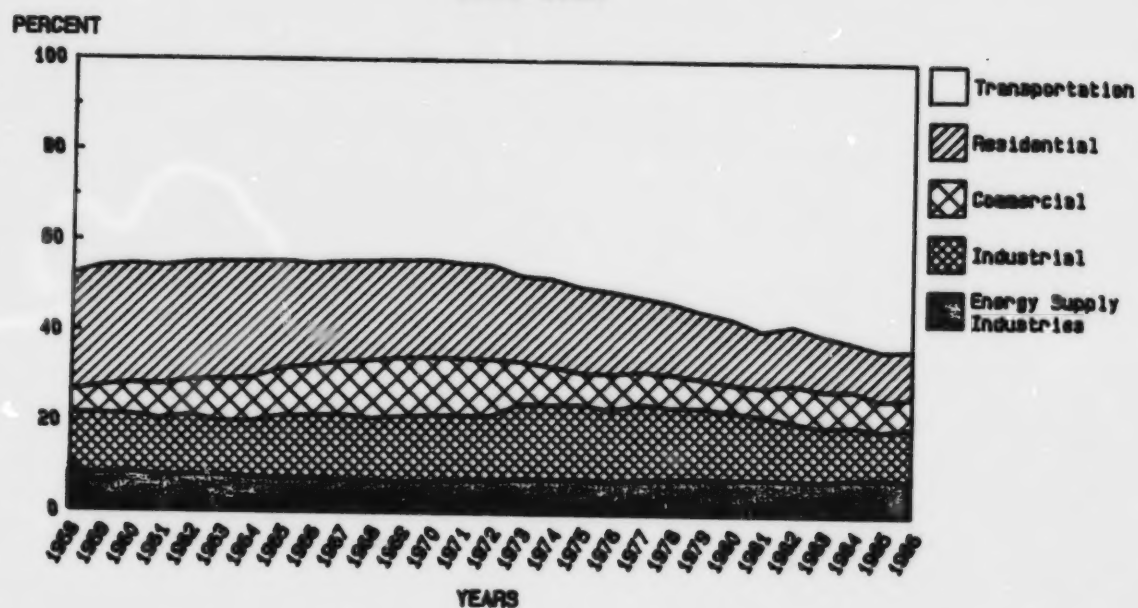
FIG 1.1
PETROLEUM ENERGY CONSUMPTION-1985
(Terajoules)



Source: Statistics Canada Catalogue 57-003
Road Diesel figures are from Statistics Canada
Road Motor Vehicle Fuel Sales Catalogue 53-216

FIG 1.2

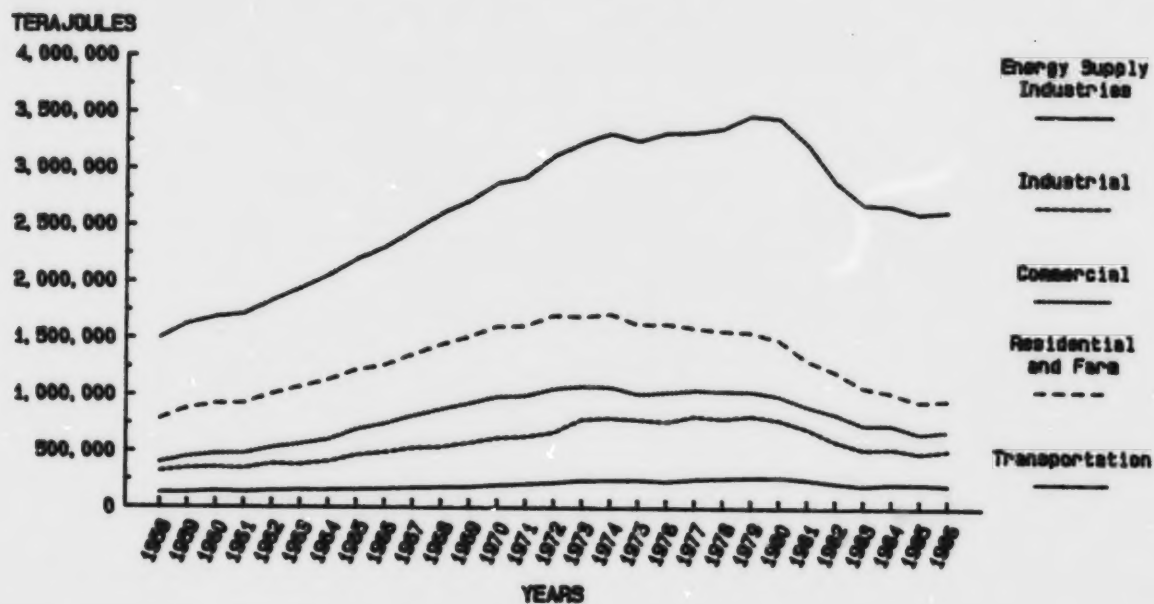
SHARE OF PETROLEUM ENERGY CONSUMPTION BY SECTOR 1958-1986



SOURCE: Statistics Canada Catalogue 57-003.

FIG. 1.3

CANADIAN PETROLEUM ENERGY CONSUMPTION BY SECTOR 1958-1986



SOURCE: STATISTICS CANADA CATALOGUE 57-003.

TABLE 1.1

CANADIAN PETROLEUM ENERGY CONSUMPTION BY SECTOR
1958-1983
(TERAJOULES)

	ENERGY SUPPLY						RESIDENTIAL									
	INDUSTRY	%	INDUSTRY	%	COMMERCIAL	%	& FARM	%	TRANSPORTATION	%	TOTAL	%				
1958	126,455	8.44	195,092	13.02	75,788	5.06	386,742	25.82	713,787	47.65	1,497,864	100				
1959	134,796	8.28	216,765	13.32	98,536	6.06	431,173	26.50	746,065	45.85	1,627,335	100				
1960	145,497	8.64	213,323	12.66	119,112	7.07	443,005	26.30	763,712	45.33	1,684,649	100				
1961	136,288	7.97	213,545	12.48	130,098	7.61	446,531	26.10	784,201	45.84	1,710,663	100				
1962	149,820	8.19	242,539	13.25	140,343	7.67	474,280	25.91	823,431	44.99	1,830,413	100				
1963	157,471	8.12	228,376	11.78	181,052	9.34	503,400	25.97	867,851	44.78	1,938,150	100				
1964	154,854	7.55	255,932	12.47	195,868	9.55	527,669	25.72	917,614	44.72	2,051,937	100				
1965	162,042	7.38	308,442	14.04	225,927	10.28	524,744	23.88	975,847	44.42	2,197,002	100				
1966	167,935	7.30	325,569	14.14	253,738	11.02	515,804	22.41	1,038,620	45.12	2,301,666	100				
1967	175,202	7.14	356,546	14.53	286,129	11.66	540,265	22.01	1,096,174	44.66	2,454,316	100				
1968	182,725	7.02	359,196	13.80	334,171	12.84	568,387	21.84	1,157,554	44.49	2,602,033	100				
1969	186,088	6.85	393,587	14.50	348,485	12.84	586,738	21.61	1,199,976	44.20	2,714,874	100				
1970	201,081	7.00	421,161	14.67	365,095	12.71	618,700	21.54	1,265,700	44.07	2,871,737	100				
1971	212,856	7.28	422,172	14.43	361,945	12.37	614,391	21.01	1,313,511	44.91	2,924,875	100				
1972	225,406	7.24	447,256	14.37	385,078	12.38	646,150	20.76	1,407,848	45.24	3,111,738	100				
1973	247,402	7.67	541,445	16.78	291,868	9.05	610,021	18.91	1,535,863	47.60	3,226,599	100				
1974	249,091	7.51	553,867	16.70	274,233	8.27	641,432	19.34	1,597,919	48.18	3,316,542	100				
1975	249,417	7.69	539,687	16.64	219,614	6.77	612,364	18.88	1,622,778	50.03	3,243,860	100				
1976	237,517	7.16	528,652	15.93	261,528	7.88	600,481	18.09	1,690,489	50.94	3,318,667	100				
1977	259,770	7.81	560,565	16.85	228,827	6.88	541,260	16.27	1,736,359	52.19	3,326,781	100				
1978	267,903	7.97	527,794	15.70	244,905	7.29	523,421	15.57	1,796,759	53.46	3,360,782	100				
1979	278,318	8.01	545,625	15.70	215,110	6.19	513,129	14.77	1,922,164	55.32	3,474,346	100				
1980	275,683	8.01	509,362	14.79	208,110	6.04	492,379	14.30	1,958,050	56.86	3,443,584	100				
1981	254,633	7.93	452,456	14.09	194,579	6.06	401,800	12.51	1,908,060	59.41	3,211,528	100				
1982	224,239	7.79	371,254	12.89	238,757	8.29	371,565	12.90	1,674,497	58.14	2,880,312	100				
1983	200,766	7.49	321,588	12.00	215,162	8.03	326,637	12.19	1,616,024	60.30	2,680,177	100				
1984	219,142	8.22	312,152	11.70	207,672	7.79	278,645	10.45	1,649,302	61.84	2,666,913	100				
1985	217,039	8.36	272,545	10.50	172,270	6.64	280,017	10.78	1,654,392	63.72	2,596,263	100				
1986	205,009	7.82	312,751	11.93	169,896	6.48	272,343	10.39	1,661,117	63.37	2,621,116	100				

SOURCE: STATISTICS CANADA CATALOGUE 57-003

COMMERCIAL: 1978-83 EXCLUDES AVIATION FUELS AND MOTOR GASOLINE.

COMMERCIAL: 1958-77 EXCLUDES NATURAL GAS, ELECTRICITY, LPG, COKE OVEN GAS, GOAL & COKE.

TRANSPORTATION: 1978-83 INCLUDES MOTOR GASOLINE COMMERCIAL & AGRICULTURAL AND AVIATION FUELS BUT EXCLUDES PIPELINES.

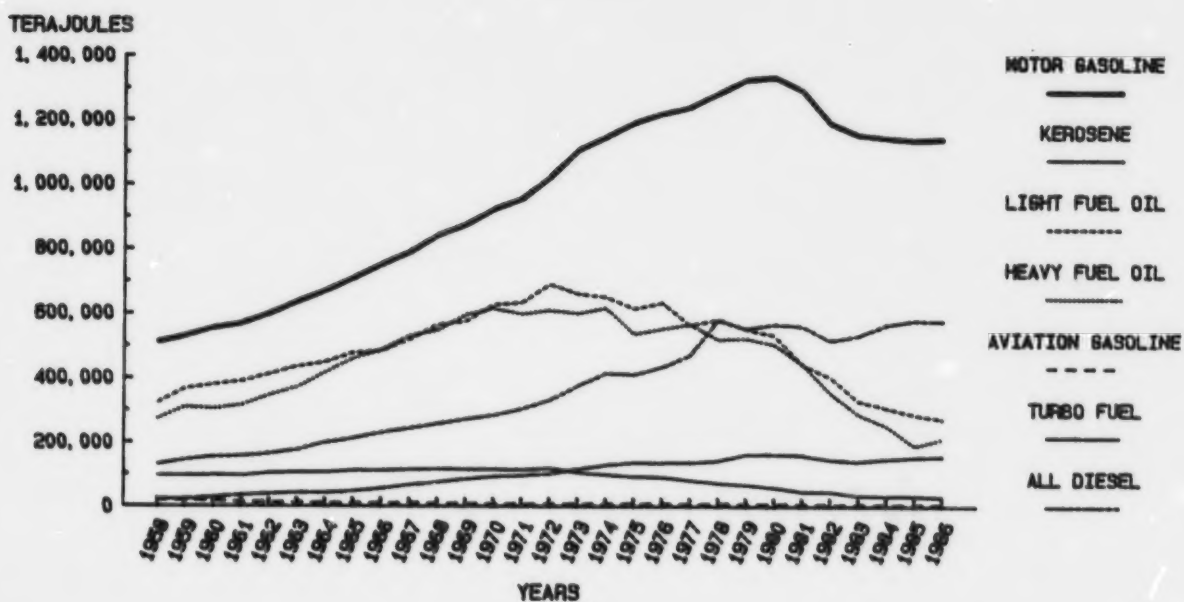
RESIDENTIAL & FARM: 1978-83 EXCLUDES MOTOR GASOLINE.

ENERGY SUPPLY INDUSTRY: 1978-83 EXCLUDES NON-ENERGY PRODUCTS.

1958-77 DATA CONVERTED FROM 10(9)BTUS BY X 1.054615.

FIG. 1.4

CANADIAN PETROLEUM CONSUMPTION BY FUEL TYPE 1958-1986



SOURCE: STATISTICS CANADA CATALOGUE 57-003.

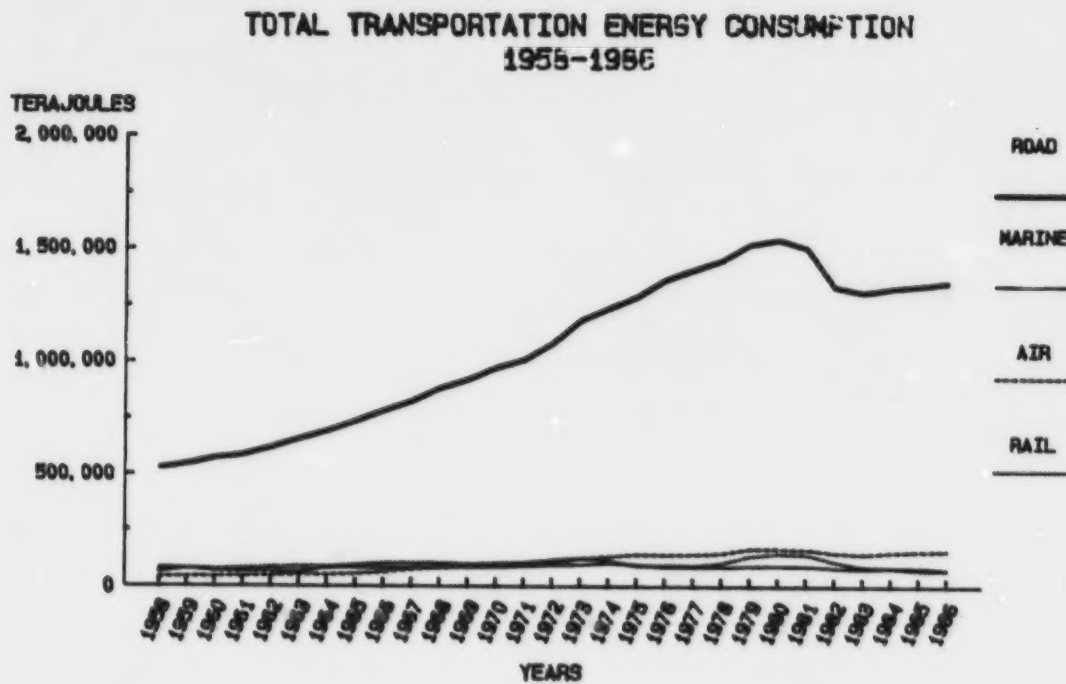
TABLE 1.2

CANADIAN ENERGY CONSUMPTION BY PETROLEUM FUEL TYPE
(TERAJOULES)

	MOTOR GASOLINE	KEROSENE	LIGHT FUEL OIL	HEAVY FUEL OIL	AVIATION GASOLINE	TURBO FUEL	ALL DIESEL
1958	507,418	95,212	322,714	271,506	19,255	23,169	130,574
1959	528,049	96,391	367,650	309,650	18,808	24,112	146,077
1960	552,756	97,864	380,530	304,024	17,614	29,600	155,216
1961	566,150	94,844	390,401	314,705	13,251	36,246	157,852
1962	597,158	104,557	413,003	346,508	11,532	40,213	165,266
1963	634,012	106,322	436,271	371,208	10,723	43,607	177,066
1964	668,117	107,220	449,695	417,392	10,066	43,731	200,086
1965	707,909	112,774	478,642	460,771	9,422	49,054	213,939
1966	749,771	111,921	484,192	487,017	9,448	57,482	231,821
1967	788,347	115,624	519,306	530,888	9,945	68,688	245,079
1968	841,642	117,901	565,002	548,009	9,423	76,548	259,218
1969	873,867	115,178	575,605	595,695	8,666	86,398	273,005
1970	922,443	115,308	627,721	615,953	7,949	94,750	286,235
1971	954,871	114,093	633,875	597,612	7,550	98,028	305,611
1972	1,021,560	119,834	689,995	609,677	7,662	103,446	331,675
1973	1,106,062	105,141	660,088	599,628	7,968	118,454	376,188
1974	1,147,081	98,231	649,746	617,134	7,792	130,541	415,364
1975	1,191,442	91,719	613,426	534,375	7,778	138,157	411,229
1976	1,220,454	90,676	632,093	552,357	7,806	137,149	434,223
1977	1,240,573	80,111	562,283	566,284	7,942	138,117	470,692
1978	1,283,380	71,461	580,694	517,090	8,264	143,763	580,698
1979	1,326,004	66,777	549,214	521,024	8,147	163,170	552,525
1980	1,333,547	58,224	530,207	501,882	7,983	164,387	566,830
1981	1,290,387	45,933	439,368	440,973	7,508	160,419	559,653
1982	1,187,860	45,445	400,826	351,614	6,041	145,876	514,654
1983	1,150,585	33,704	326,824	285,677	5,857	140,329	530,030
1984	1,140,785	32,843	305,549	249,487	5,949	148,863	564,293
1985	1,134,472	32,415	284,053	188,745	5,915	154,493	579,129
1986	1,138,696	28,613	270,026	211,133	5,611	156,882	575,772

SOURCE: STATISTICS CANADA CATALOGUE 57-003.

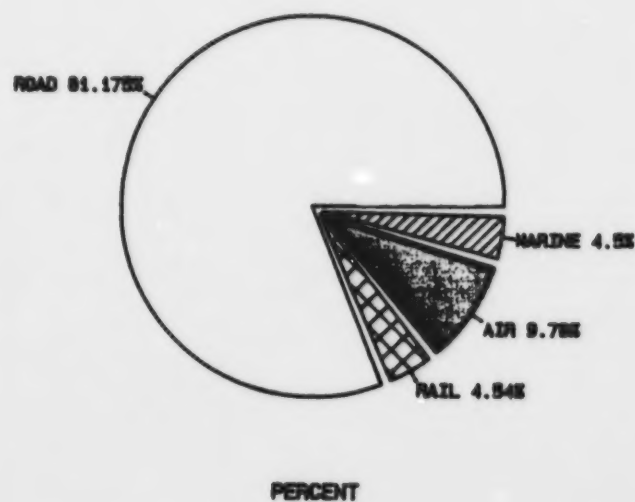
FIG. 1.5



SOURCE: Statistics Canada Catalogue 57-003.

FIG. 1.6

**TRANSPORTATION ENERGY CONSUMPTION
1986**



SOURCE: STATISTICS CANADA CATALOGUE 57-003.

TABLE 1.3

TOTAL TRANSPORTATION ENERGY CONSUMPTION BY MODE
(TERAJOULES)

	ROAD	%	RAIL	%	AIR	%	MARINE	%	TRANSPORTATION	%
1958	523,413	73.33	82,372	11.54	42,424	5.94	65,578	9.19	713,787	100
1959	543,294	72.82	78,490	10.52	42,920	5.75	81,361	10.91	746,065	100
1960	570,731	74.73	68,106	8.92	47,214	6.18	77,659	10.17	763,712	100
1961	584,389	74.52	67,375	8.59	49,498	6.31	82,939	10.58	784,201	100
1962	616,336	74.85	67,204	8.16	51,745	6.28	88,146	10.70	823,431	100
1963	654,573	75.42	66,874	7.71	54,331	6.26	92,073	10.61	867,851	100
1964	689,285	75.12	84,938	9.26	53,797	5.86	89,594	9.76	917,614	100
1965	732,672	75.08	86,088	8.82	58,476	5.99	98,611	10.11	975,847	100
1966	779,422	75.04	85,506	8.23	66,930	6.44	106,762	10.28	1,038,620	100
1967	821,999	74.99	88,479	8.07	78,633	7.17	107,063	9.77	1,096,174	100
1968	878,967	75.93	85,235	7.36	85,971	7.43	107,382	9.28	1,157,555	100
1969	918,119	76.51	86,822	7.24	95,063	7.92	99,971	8.33	1,199,975	100
1970	970,779	76.70	87,532	6.92	102,698	8.11	104,691	8.27	1,265,700	100
1971	1,006,526	76.63	92,725	7.06	105,578	8.04	108,683	8.27	1,313,512	100
1972	1,079,024	76.64	97,334	6.91	111,108	7.89	120,383	8.55	1,407,849	100
1973	1,181,313	76.92	99,383	6.47	126,422	8.23	128,746	8.38	1,535,864	100
1974	1,235,670	77.33	105,867	6.63	138,333	8.66	118,049	7.39	1,597,919	100
1975	1,286,179	79.26	98,078	6.04	145,940	8.99	92,582	5.71	1,622,779	100
1976	1,361,693	80.55	86,913	5.14	144,955	8.57	96,929	5.73	1,690,490	100
1977	1,406,303	80.99	89,247	5.14	146,059	8.41	94,751	5.46	1,736,360	100
1978	1,448,533	80.62	89,157	4.96	152,027	8.46	107,042	5.96	1,796,759	100
1979	1,519,704	79.06	93,190	4.85	171,316	8.91	137,954	7.18	1,922,164	100
1980	1,540,809	78.69	94,209	4.81	172,370	8.80	150,662	7.69	1,958,050	100
1981	1,501,470	78.69	91,290	4.78	167,926	8.80	147,375	7.72	1,908,061	100
1982	1,326,950	79.24	83,992	5.02	151,917	9.07	111,639	6.67	1,674,498	100
1983	1,301,335	80.53	79,334	4.91	146,186	9.05	89,171	5.52	1,616,026	100
1984	1,322,349	80.18	86,703	5.26	154,812	9.39	85,437	5.18	1,649,301	100
1985	1,334,354	80.66	85,496	5.17	160,408	9.70	74,133	4.48	1,654,392	100
1986	1,348,415	81.175	75,392	4.54	162,493	9.78	74,820	4.50	1,661,120	100

TABLE 1.4

CANADIAN MOTOR GASOLINE CONSUMPTION
BY SECTOR
(TERAJOULES)

YEAR	PUB.ADMIN COMMERCIAL	Yr-to-Yr % Change	AGRICULTURE	Yr-to-Yr % Change	RETAIL PUMP SALES	Yr-to-Yr % Change	ROAD & URBAN TRANSIT	Yr-to-Yr % Change	TOTAL MOTOR GASOLINE	Yr-to-Yr % Change
1958									507,418	
1959									528,049	4.07
1960									552,756	4.68
1961									566,150	2.42
1962									597,158	5.48
1963									634,012	6.17
1964									668,117	5.38
1965									707,909	5.96
1966									749,771	5.91
1967									788,347	5.15
1968									841,642	6.76
1969									873,867	3.83
1970									922,443	5.56
1971									954,871	3.52
1972									1,021,560	6.98
1973									1,106,062	8.27
1974									1,147,081	3.71
1975									1,191,442	3.87
1976									1,220,454	2.44
1977									1,240,573	1.65
1978			92,372		1,050,874		140,133		1,283,380	3.45
1979			90,407	-2.13	1,077,962	2.58	159,636	13.92	1,328,004	3.48
1980			83,152	-8.02	1,092,447	1.34	157,949	-1.06	1,333,547	0.42
1981	89,372		79,076	-4.90	1,062,033	-2.78	59,857	-62.10	1,290,337	-3.24
1982	85,962	-3.82	66,304	-16.15	984,867	-7.27	50,727	-15.25	1,187,860	-7.94
1983	73,455	-14.55	75,706	14.18	955,546	-2.98	45,878	-9.56	1,150,585	-3.14
1984	78,880	7.39	47,994	-36.60	960,060	0.47	53,851	17.38	1,140,785	-0.85
1985	64,667	-18.02	47,224	-1.60	972,169	1.26	50,412	-6.39	1,134,472	-0.55
1986	63,368	-2.01	51,627	9.32	982,238	1.04	41,463	-17.75	1,138,696	0.37

SOURCE: STATISTICS CANADA CATALOGUE 57-003

1958-77 FIGURES CONVERTED FROM 10(9) BTUS TO TERAJOULES X 1.054615.

In 1978 a new reporting system was started by Statistics Canada showing figures for agriculture, retail pump sales and road and urban transit areas not previously reported. In 1981 a further breakdown for commercial was started.

TABLE 1.5

CANADIAN DIESEL FUEL OIL CONSUMPTION BY SECTOR
(TERAJOULES)

PUBLIC					
YEAR	ADMINISTRATION	INDUSTRY	AGRICULTURE	TRANSPORTATION	TOTAL
1958	7,853	20,049	15,643	87,029	130,574
1959	10,969	24,833	14,919	95,356	146,077
1960	12,743	26,867	18,384	97,222	155,216
1961	11,486	29,818	17,659	98,225	157,188
1962	13,716	33,595	20,324	97,631	165,266
1963	12,849	38,161	19,052	107,003	177,065
1964	12,639	45,491	25,281	116,675	200,086
1965	12,052	51,292	25,770	124,825	213,939
1966	11,198	55,624	32,543	132,457	231,822
1967	13,379	54,134	36,401	141,164	245,078
1968	13,624	57,715	40,776	147,104	259,219
1969	16,522	63,987	37,819	154,678	273,006
1970	19,605	74,260	35,107	157,263	286,235
1971	21,142	80,269	37,406	166,794	305,611
1972	23,108	87,433	39,933	181,202	331,676
1973	24,984	106,835	43,558	200,811	376,188
1974	22,450	120,845	47,431	224,638	415,364
1975	18,860	124,390	53,346	214,634	411,230
1976	21,530	93,331	58,177	261,185	434,223
1977	23,296	99,725	59,590	288,080	470,691
1978	23,483	116,781	54,683	293,283	488,230
1979	22,760	138,982	58,293	332,490	552,525
1980	23,885	134,449	58,367	350,129	566,830
1981	25,790	129,637	59,172	345,054	559,653
1982	25,804	111,704	54,232	322,914	514,654
1983	27,592	113,328	73,680	315,429	530,029
1984	27,536	124,136	48,771	363,850	564,293
1985	24,409	120,053	51,726	382,942	579,130
1986	25,301	112,259	55,192	383,020	575,772

SOURCE: STATISTICS CANADA CATALOGUE 57-003

TABLE 1.6

CANADIAN TRANSPORTATION
DIESEL FUEL CONSUMPTION BY MODE

(TERAJOULES)									
YEAR	RETAIL*	ROAD &*	COMM. &*	ROAD	MARINE		SUB-	RAIL	TOTAL
	PUMP	URBAN	OTHER	SUB-	INTERNATIONAL*	DOMESTIC*	TOTAL		DIESEL
	SALES	TRANSIT	INSTIT.	TOTAL					
1958				15,995			16,617	54,417	87,029
1959				15,246			20,514	59,596	95,356
1960				17,975			19,466	59,781	97,222
1961				18,239			19,175	60,811	98,225
1962				19,395			20,410	57,826	97,631
1963				20,561			23,039	63,404	107,003
1964				21,168			26,341	69,166	116,675
1965				24,762			26,879	73,184	124,825
1966				29,651			30,780	72,026	132,457
1967				33,653			33,328	74,184	141,164
1968				37,324			37,174	72,606	147,104
1969				44,253			34,864	75,562	154,678
1970				48,336			32,886	76,041	157,263
1971				51,755			35,843	79,295	166,794
1972				57,463			40,506	83,233	181,202
1973				75,251			42,155	83,405	200,811
1974				88,590			42,393	93,755	224,638
1975				94,737			31,599	88,298	214,634
1976				141,238			33,034	86,913	261,185
1977				165,730			33,103	89,247	288,080
1978	29,027	136,129		165,156			38,970	89,157	293,283
1979	32,919	158,781		191,700	10,200	37,400	47,600	93,190	332,490
1980	38,551	168,711		207,262	10,237	38,421	48,658	94,209	350,129
1981	45,666	165,467		211,133	9,088	33,543	42,631	91,290	345,054
1982	44,618	94,472	64,554	203,644	8,268	28,895	37,163	82,108	322,914
1983	62,632	88,118	52,388	203,138	5,331	29,244	34,575	77,716	315,429
1984	73,400	108,164	60,294	241,858	5,262	30,027	35,289	86,703	363,850
1985	85,719	114,163	63,092	262,974	3,596	30,876	34,472	85,496	382,942
1986	100,796	108,923	64,687	274,406	3,403	29,819	33,222	75,392	383,020

SOURCE: STATISTICS CANADA CATALOGUE 57-003

1958-77 FIGURES CONVERTED FROM 10(9)BTUS TO TERAJOULES X 1.054615.

EXCLUDES PIPELINES.

*In 1978 a new reporting system was started but no previous data is available.

International: vessel activities between Canadian and foreign ports or between two foreign ports.

Note: Prior to 1982 Commercial & Other Institutional was
presumed part of Road & Urban.

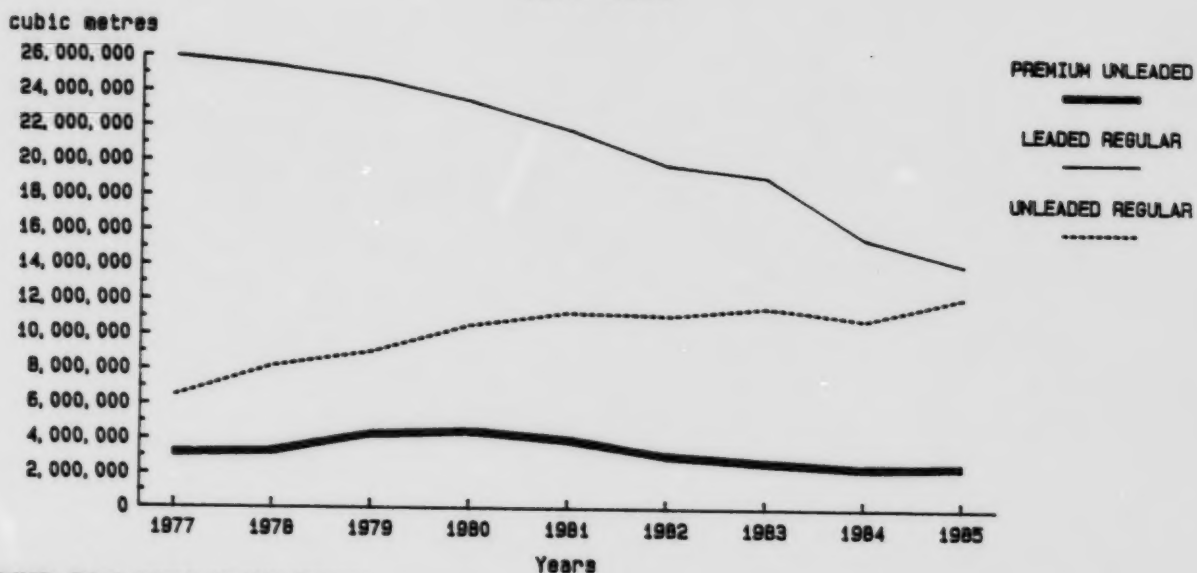
TABLE 1.7

CANADIAN TOTAL MOTOR GASOLINE AND DIESEL FUEL OIL CONSUMPTION
(CUBIC METRES)

YEAR	GASOLINE	YR-TO-YR PERCENT CHANGE	DIESEL	YR-TO-YR PERCENT CHANGE
1958	14,641,491		3,441,355	
1959	15,236,927	4.07	3,813,206	10.81
1960	15,949,477	4.68	4,083,988	7.10
1961	16,336,427	2.43	4,162,329	1.92
1962	17,224,732	5.44	4,323,465	3.87
1963	18,294,195	6.21	4,696,905	8.64
1964	19,278,484	5.38	5,301,873	12.88
1965	20,426,768	5.96	5,663,394	6.82
1966	21,634,485	5.91	6,167,773	8.91
1967	22,747,808	5.15	6,491,474	5.25
1968	24,285,421	6.76	6,801,665	4.78
1969	25,215,363	3.83	7,246,297	6.54
1970	26,526,370	5.20	7,511,197	3.66
1971	27,801,622	4.81	8,147,635	8.47
1972	29,325,409	5.48	8,829,835	8.37
1973	32,273,514	10.05	9,905,590	12.18
1974	33,190,207	2.84	10,813,477	9.17
1975	34,543,259	4.08	10,898,203	0.78
1976	35,290,953	2.16	11,651,440	6.91
1977	35,810,432	1.47	12,393,089	6.37
1978	37,034,757	3.42	13,074,298	5.50
1979	38,285,181	3.38	14,648,472	12.04
1980	38,474,789	0.50	14,977,361	2.25
1981	37,228,425	-3.24	14,739,845	-1.59
1982	34,279,419	-7.92	13,530,305	-8.21
1983	33,186,568	-3.19	13,924,353	2.91
1984	32,913,600	-0.82	14,645,700	5.18
1985	32,731,500	-0.55	15,006,700	2.46
1986	32,853,300	0.37	14,901,300	-0.70

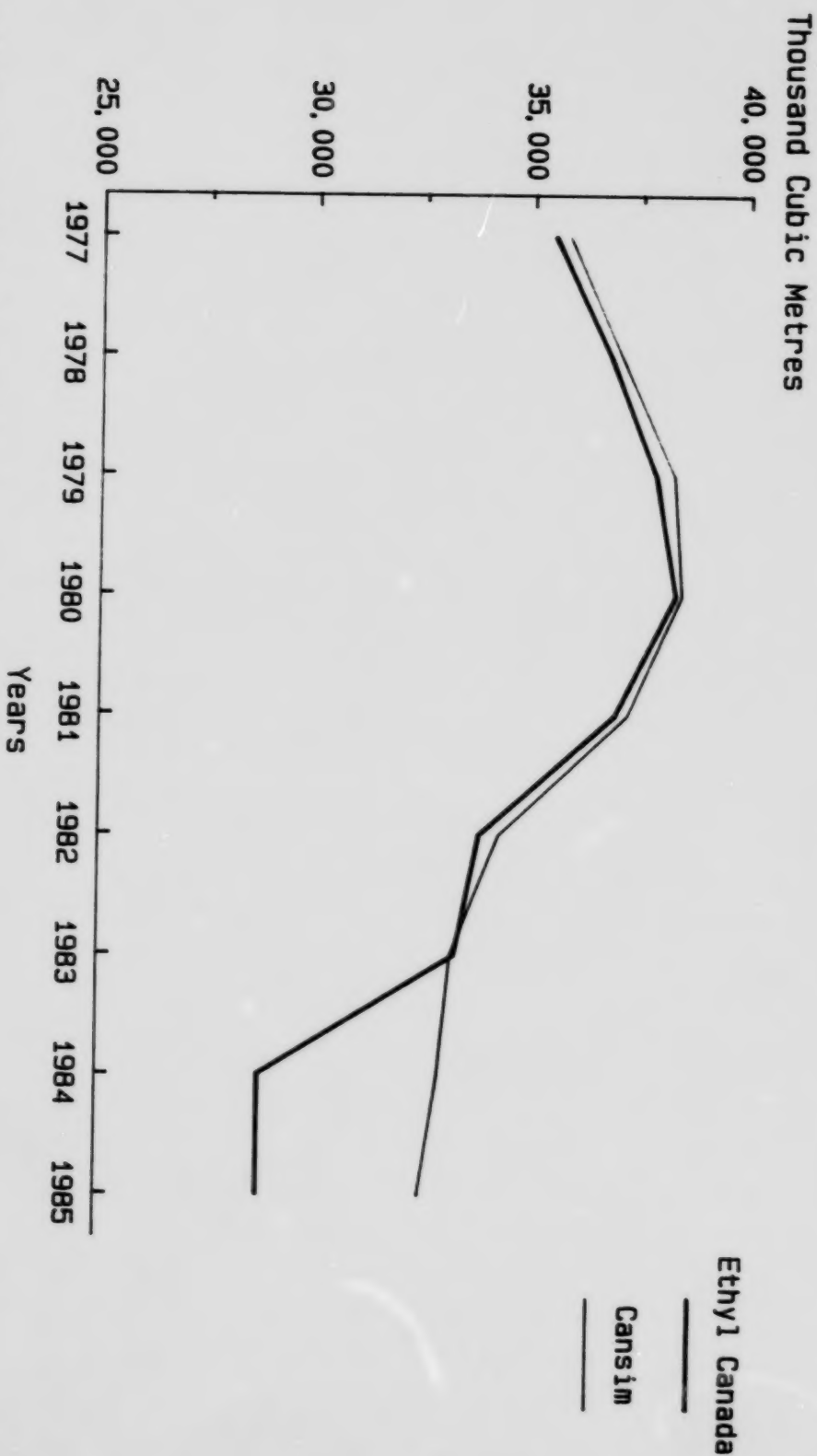
SOURCE: STATISTICS CANADA CANSIM DATA BASE D333515 AND D334415
Monthly data is available from Statistics Canada.

FIG. 1.7
ETHYL CANADA MOTOR GASOLINE SALES
1977-1985



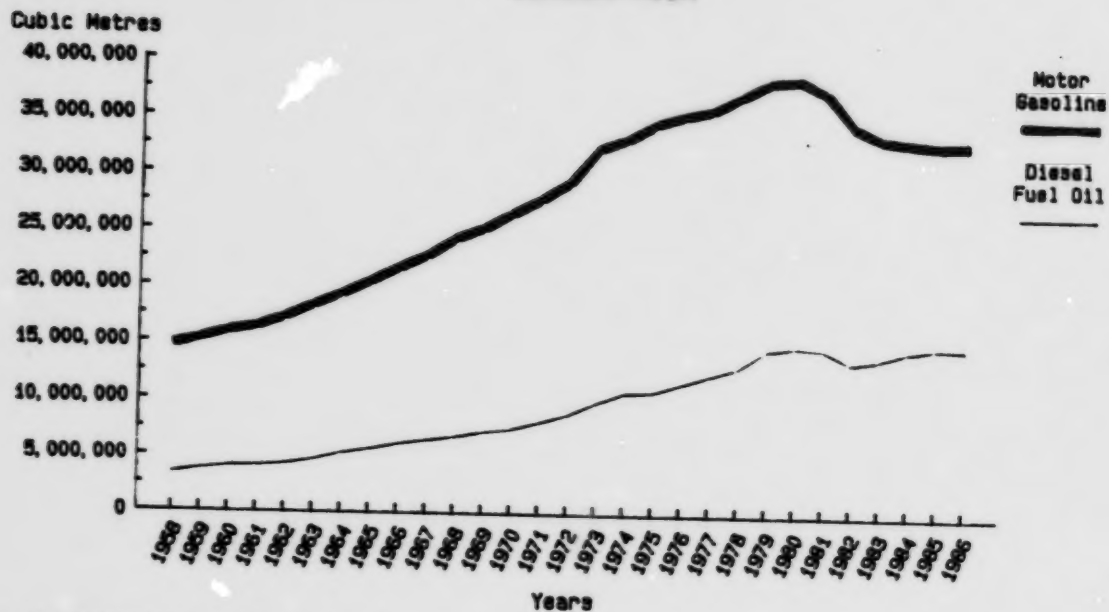
SOURCE: Ethyl Canada Monthly Reports.
 Commencing Jan '84 sales will be less complete
 & cover only 85-90% of total sales in Canada.

FIG. 1.8
ETHYL CANADA AND CANSIM MOTOR GASOLINE SALES
1977-1985



SOURCE: *Ethyl Canada Monthly Reports and
Statistics Canada Cansim Data Base.
*In 1984 gasoline sales only cover 85-90% sold.

FIG. 1.72
TOTAL MOTOR GASOLINE AND DIESEL FUEL OIL
CONSUMPTION



SOURCE: Statistics Canada Census Data Base
0333515 and 0334415

TABLE 1.9

STATISTICS CANADA
ROAD MOTOR VEHICLES--FUEL SALES
GROSS GASOLINE SALES (1986)
(FOR MOTIVE PURPOSES EXCLUDING AVIATION)
('000 LITRES)

YEAR	CANADA	NFD	PEI	NS	NB	QUE	ONT	MAN	SASK	ALTA	BC/ MT/ YUK
1971	27,685,320	420,204	143,012	891,139	783,706	6,566,390	10,109,481	1,295,248	1,611,926	2,710,834	3,153,380
1972	29,527,832	465,069	152,095	946,332	858,150	6,992,300	10,855,734	1,379,292	1,635,492	2,883,233	3,358,116
1973	31,928,893	559,605	167,583	1,035,471	936,624	7,554,922	11,641,569	1,473,516	1,721,757	3,125,487	3,702,361
1974	33,223,870	607,680	173,733	1,091,591	981,763	7,785,507	11,983,430	1,512,913	1,796,395	3,327,520	3,963,338
1975	34,840,783	574,191	180,832	1,135,422	1,034,570	8,277,836	12,581,352	1,597,315	1,909,836	3,563,664	3,985,765
1976	34,914,890	586,250	182,993	1,154,562	1,040,497	8,346,949	12,429,581	1,629,165	1,976,431	3,808,891	3,759,571
1977	35,772,912	592,130	187,500	1,169,844	1,056,266	8,487,171	12,648,711	1,655,518	1,995,866	4,068,558	3,911,368
1978	36,909,196	620,002	194,625	1,211,713	1,120,355	8,754,950	12,933,930	1,701,570	2,019,290	4,153,087	4,199,674
1979	38,319,444	644,425	204,935	1,237,636	1,156,678	8,758,775	13,311,785	1,719,921	2,037,615	4,836,369	4,411,307
1980	38,037,382	643,771	197,113	1,226,008	1,166,231	8,695,512	13,359,966	1,653,526	2,041,994	4,515,997	4,537,264
1981	36,896,458	609,496	182,254	1,178,010	1,114,800	8,150,138	12,917,634	1,571,679	1,951,129	4,645,990	4,575,328
1982	32,583,705	575,609	170,206	1,111,966	1,020,723	7,096,441	11,867,789	1,496,312	516,993	4,508,848	4,138,816
1983	19,446,084	351,493	170,002	1,044,659	939,105	6,819,296	N/A	1,483,663	N/A	4,490,136	3,927,930
1984	19,320,729	352,111	170,207	1,074,603	961,241	6,767,094	N/A	1,462,979	N/A	4,470,805	3,861,689
1985	18,953,483	351,924	169,017	1,065,906	936,961	6,687,645	N/A	1,471,397	N/A	4,312,054	3,758,579
1986	18,965,107	349,588	171,373	1,068,694	935,314	6,666,091	N/A	1,465,691	N/A	4,312,222	3,796,134

SOURCE: STATISTICS CANADA CATALOGUE 53-218 ROAD MOTOR VEHICLES--FUEL SALES.

*NOTE: IN APRIL 1982 SASKATCHEWAN REMOVED ROAD-USE TAX.

NOTE: STATISTICS CANADA ADVISES THAT CAUTION SHOULD BE EXERCISED IN THE USE OF 1983 DATA AS ONTARIO AND SASKATCHEWAN WERE UNABLE TO SUPPLY DATA.

TABLE 1.10

STATISTICS CANADA
ROAD MOTOR VEHICLES--FUEL SALES
NET DIESEL SALES
(CONSUMED ON PUBLIC ROADS & HIGHWAYS)
(/000 LITRES)

YEAR	CANADA	Nfld	PEI	NS	NB	QUE	ONT	MAN	SASK	ALTA	BC/ MT/ YUK.
1971	2,209,005	50,524	6,373	35,512	49,095	614,050	750,993	90,034	104,057	195,055	315,313
1972	2,722,932	40,805	7,569	43,161	57,416	728,554	1,001,728	119,429	117,421	226,492	370,357
1973	3,293,908	65,786	6,802	54,113	86,799	906,356	1,119,260	134,470	142,145	277,327	420,849
1974	3,872,403	46,839	7,398	64,026	90,044	1,230,119	1,293,619	157,118	160,020	339,683	483,539
1975	4,038,418	82,832	9,419	75,229	95,905	1,275,215	1,289,233	149,677	179,094	383,477	498,257
1976	4,400,418	83,831	8,578	90,265	106,338	1,344,597	1,431,256	181,322	201,014	452,280	500,937
1977	4,772,715	92,768	10,538	127,065	117,326	1,452,958	1,533,136	193,389	207,213	508,302	530,021
1978	4,800,512	92,400	12,596	154,640	133,599	1,540,829	1,674,000	183,940	222,175	508,302	587,699
1979	5,171,936	109,509	12,956	165,656	168,251	1,556,273	2,069,475	181,744	232,605	508,302	655,469
1980	5,313,972	111,252	14,763	161,561	232,936	1,537,645	2,001,627	228,722	270,694	508,302	754,773
1981	5,269,933	107,069	13,590	159,790	204,051	1,537,800	1,905,810	227,611	273,088	508,302	761,125
1982	3,854,655	105,689	14,676	156,572	189,720	1,188,978	1,239,611	205,300	79,325	508,302	674,784
1983	2,710,483	103,715	17,315	169,417	189,202	1,305,400	N/A	213,608	(2)	508,302	711,826
1984	2,936,168	108,513	15,927	184,319	217,646	1,476,451	N/A	194,708	(2)	508,302	738,603
1985	3,220,870	109,299	18,554	201,453	222,493	1,647,306	N/A	200,862	(2)	508,302	820,902
1986	3,304,688	108,022	18,980	217,248	229,293	1,751,908	N/A	176,807	(2)	508,302	802,430

SOURCE: STATISTICS CANADA CATALOGUE 53-218 ROAD MOTOR VEHICLES--FUEL SALES.

(1) THIS FIGURE REPRESENTS 1982 SALES UP TO THE END OF AUGUST 1982.

(2) ROAD TAX REMOVED (APR/78-ALTA) (APR/82-SASK).

(3) THIS FIGURE REPRESENTS 1982 SALES UP TO APRIL 1982.

(4) MANY PREVIOUSLY TAX-EXEMPT USES IN N.B. WERE SUBJECTED TO ROAD TAX OF JULY 1/79.

(5) THIS FIGURE REPRESENTS 1978 SALES UP TO APR/78.

DEFINITIONS

Energy Supply-Demand in Canada:

Detailed Energy Supply-Demand in Canada, (Catalogue 57-207) from 1958 to 1977 data is in imperial units. The first two editions of Catalogue 57-003 (in metric units only) which replaces Catalogue 57-207, were special editions covering the years 1976 and 1977. Some responding companies were not able to distinguish between certain of the disposition categories--for example between "public administration" and "other commercial/institutional" (Tables 1.1 through 1.6, Figures 1.1 through 1.7).

The universes for all surveys forming the basis of this data are characterized by very few but very large respondents-Imperial Oil Ltd., etc. Consequently, no "sample" surveys are employed; rather surveys of the total universe form the basis of this data. It should be noted that imperial units were changed with the catalogue and metric units are now being used. 1 B.t.u. = $1.054615 \times 10(3)$ joules.

In the transportation sector, only the use of fuel by transportation industries (defined as railways, airlines, marine, pipelines, road and urban transit, and retail pump sales) is included. Excluded is that fuel which may have been used by other sectors (e.g., agriculture) for transportation but which is included within the quantities reported for such sectors (Table 1.4).

Producer Consumption as measured here is the consumption by the producing industry of its own produced fuel--for example refined petroleum products consumed by the refining industry. It does not include consumption of energy forms produced by other energy supply industries--for example, it would exclude the use of natural gas by the refining industry. In the case of electricity it includes transmission losses, adjustments, etc.

The data sources for this data are mainly monthly surveys of the major energy suppliers.

Road Motor Vehicles-Fuel Sales

This is data on annual and monthly sales of gasoline, and annual sales of diesel fuel used as motive fuel for road vehicles in Canada (Table 1.7).

The term "net sales" refers to those sales of gasoline and diesel fuel on which taxes were remitted at road-use rates. These net figures reported by the provinces and territories represent, with minor exceptions, the amount of taxable fuel actually consumed on public roads and streets in Canada (Table 1.10).

"Gross Sales" of all grades of gasoline consists of sales of gasoline for farm, construction or other off-road uses as well as net sales (Table 1.09).

Excluded from the tabulations are fuel sales for:

- use by railways, ships and aircraft;
- heating or industrial purposes.

The data was collected from the 10 provincial and two territorial government departments responsible for collecting fuel tax and maintaining records of motive fuel sales. Tabulations present data on sales of gasoline and diesel oil used for road transport purposes plus gasoline of the type used by road vehicles which was consumed in off-highway activities such as farming, forestry or mining.

Excluded are sales of aviation gasoline, aviation turbo-fuel, marine transport fuels and railway diesel, as well as diesel sales for use in farming, construction or other off-road activities which are exempt from paying tax at the full road-use rate. Also excluded are all fuels used for heating, industrial power, electricity generation or similar non-transportation purposes.

Fuel sales data furnished by provincial and territorial governments reflect the level of economic activity and the constraints imposed by rules and regulations within each province or territory.

New Brunswick fuel tax regulations were changed effective July 1, 1979 when many previously tax-exempt uses were subjected to road tax rates.

On April 23, 1980, the Government of Ontario removed the tax on manufactured gases used for fuel purposes. For this reason net sales of liquefied petroleum gas for Ontario were not reported after this date. Net sales of diesel oil for Ontario tend to be understated as the province was unable to furnish sales figures for the months of September to December 1982.

Effective April, 1982 the Government of Saskatchewan removed the tax on all types of road-use fuels purchased in that province. For this reason net sales statistics for gasoline, diesel and liquefied petroleum gas do not apply effective April, 1982. Caution should also be exercised in the use of gross sales figures of gasoline for Saskatchewan as the province was unable to furnish figures effective April, 1982.

On April 1, 1978, the Government of Alberta removed the tax on all types of motive fuel purchased in that province except for aviation gasoline and railway diesel oil. Due to this situation, the net sales statistics for gasoline and diesel for the province of Alberta do not apply.

Net diesel sales figures are frequently influenced by fluctuations in the payments of rebates to off-road users, who must pay the full road-use tax when they purchase the fuel, then claim a refund later. As rebates are paid, the related quantity is deleted from the net sales figures by the province or territory concerned. Similar situations arise with retroactive rebate claims on gasoline but these are generally not large enough to cause a noticeable distortion.

DATA DICTIONARY
TRANSPORT SECTOR
ENERGY CONSUMPTION

1. Data Element: CANADIAN PETROLEUM CONSUMPTION BY SECTOR

Item: Table 1.1

Source: Statistics Canada Catalogue 57-505, 1958-77
Detailed Energy Supply & Demand in Canada
Canada - for each year - Million B.t.u.'s
Converted to terajoules x 1.054615
(Total)-(Electricity+Natural Gas+LPG+Cdn.Oven Gas+Coke+Coal)
Line 26 - Energy Supply Industry
Line 27,28,29,30 - Transportation
Line 31 - Residential & Farm
Line 32 - Commercial
Line 33 - Industrial
Total - Lines 26 to 33

Statistics Canada Catalogue 57-003 4thQ Yr-to-Date, 1979-86
Quarterly Report on Energy Supply & Demand in Canada
Total less (Non-Energy Products+Pet.Coke+Still Gas+Ref.LPG's)
Energy Supply Industry: line 14 less Non-Energy Prod, 1978
Energy Supply Industry: line 15 less Non-Energy Prod, 1979-86

Industry: Line 29, 1978
Industry: Line 30, 1979-86

Commercial: line 39+40 less (Avia.Gas+Turbo+Mo.Gasoline), 1978
Commercial: line 44+45 less (Avia.Gas+Turbo+Mo.Gasoline), 1979-86

Residential & Farm: line 37+38 less mo.gasoline, 1978
Residential & Farm: line 42+43 less mo.gasoline, 1979-86

Transportation: Line 30 to 33+35+36+(com.mo.gasoline+com.avia.gasoline+
Com.turbo+Res.&Farm Mo.gasoline), 1978
Transportation: Line 31 to 33+35+36+39+40+(com.mo.gasoline+
Com.avia.gas+com.turbo+Res.&Farmmo.gas), 1979-86

Total: sum of all of the above.

NOTE: 1981 has been revised since original publication.

2. Data Element: CANADIAN PETROLEUM CONSUMPTION BY FUEL TYPE

Item: Table 1.2

Source: Statistics Canada Catalogue 57-505, 1958-1977
Detailed Energy Supply and Demand in Canada
Converted from B.t.u.'s to terajoules x 1.054615.

Lines 27 to 33

Statistics Canada Catalogue 57-003 4th Q Yr-to-Date, 1979-86

1978 Table 28

1979-1986 Table 1D

1978: Lines 29 to 33+35 to 40

1979-1986: Lines 30 to 33+35+36+39+40+42 to 45.

3. Data Element: TOTAL TRANSPORTATION ENERGY CONSUMPTION

Item: Table 1.3

Source: Statistics Canada Catalogue 57-505, 1958-77
Detailed Energy Supply & Demand in Canada
Converted from B.t.u.'s to terajoules x 1.054615.

Road: Total - Line 27
Rail: Total - Line 28 less Coal
Air: Total - Line 29
Marine: Total - Line 30 less Coal
Transportation: Total of all of above.

Statistics Canada Catalogue 57-003 4th Q Yr-to-Date, 1979-86
Quarterly Report on Energy Supply & Demand in Canada

1978 Table 28

1979-1986 Table 1D

Road: Total line 35+36+com.mo.gas+Res.&Farm mo.gas
Rail: Total line 30
Air: Total line 31+32+com.&admin.+avia.gas+turbo
Marine: Total line 33
Transportation: Total of all of above.

4. Data Element: CANADIAN MOTOR GASOLINE CONSUMPTION

Item: Table 1.4

Source: Statistics Canada Catalogue 57-505, 1958-77
Detailed Energy Supply and Demand in Canada
Converted from B.t.u.'s to terajoules x 1.054615.

Motor Gasoline - Line 27

Statistics Canada Catalogue 57-003 4th Q Yr-to-Date, 1979-86
Quarterly Report on Energy Supply and Demand in Canada

1978 Table 28
1979-86 Table 10

Commercial:	- Line 39+40 ('78) Line 44+45 ('79-86)
Agriculture:	- Line 37+38 ('78) Line 42+43 ('78-86)
Retail Pump Sales:	- Line 36 ('78) Line 40 ('79-86)
Road & Urban Transit:	- Line 35 ('78) Line 39 ('79-86)
Motor Gasoline:	- Total of all of above.

5. Data Element: DIESEL FUEL OIL CONSUMPTION BY SECTOR

Item: Table 1.5

Source: Statistics Canada Catalogue 57-505, 1958-77
Detailed Energy Supply and Demand in Canada
Converted from B.t.u.'s to terajoules x 1.054615.

Diesel Fuel Oil: Commercial - Line 32
Industrial - Line 33
Agriculture - Line 31

Statistics Canada Catalogue 57-003 4th Q Yr-to-Date, 1978-86
Quarterly Report on Energy Supply and Demand in Canada

1978 Table 28
1979-86 Table 10

Diesel Fuel Oil:

Commercial	- Line 39+40 ('78) Line 44+45 ('79-86)
Com.&Oth.Inst.	- Line 45 ('82-86)
Industry	- Line 29 ('78) Line 30 ('79-86)
Agriculture	- Line 37+38 ('78) Line 42+43 ('79-86)
Construction	- Line 28 ('78) Line 29 ('79-86)
Forestry	- Line 27 ('78) Line 28 ('79-86)
Manufacturing	- Line 26 ('78) Line 27 ('79-86)
Mining	- Line 18 ('78) Line 19 ('79-86)

6. Data Element: DIESEL FUEL OIL CONSUMPTION BY MODE

Item: Table 1.6

Source: Statistics Canada Catalogue 57-505, 1958-77
Detailed Energy Supply and Demand in Canada
Converted from B.t.u.'s to terajoules x 1.054615.

Diesel Fuel Oil: Road: (Sub-Total) Line 27
Marine: (Sub-Total) Line 30
Rail: Line 28
Total Diesel: Sum of all of above.

Statistics Canada Catalogue 57-003 4th Q Yr-to-Date, 1978-1986
Quarterly Report on Energy Supply and Demand in Canada

1978 Table 28
1979-86 Table 10

Diesel Fuel Oil: Retail Pump Sales: Line 36 ('78) Line 40 ('79-86)
Road & Urb.Trnsit: Line 35 ('78) Line 39 ('79-86)
Com.&Oth.Inst.: Line 45 ('82-86)
Sub-Total: Sum of all of above.
Foreign Marine: Line 33 ('78) Line 36 ('79-86)
Domestic Marine: Line 32 ('78) Line 35 ('79-86)
Sub-Total: Foreign+Domestic above
Rail: Line 30 ('78) Line 31 ('79-86)
Total Diesel: Sum of all of above.

NOTE: For Tables 1.4, 1.5 and 1.6:

In 1978 a new reporting system was started but no previous data is available. Converted B.t.u.'s to terajoules x 1.054615.

7. Data Element: CANADIAN TOTAL MOTOR GASOLINE & DIESEL FUEL OIL CONSUMPTION

Item: Table 1.7

Source: Statistics Canada Cansim Data Base: Gasoline D333515
Diesel D334415.

8. Data Element: ETHYL CANADA MOTOR GASOLINE SALES BY FUEL TYPE

Item: Table 1.8

Source: Ethyl Canada Monthly Reports.

NOTE: Beginning in Jan. 1984 gasoline sales will be less complete than they were previously. One company advised Ethyl that they will no longer submit their gasoline sales data. Total gasoline now covers 85-90% of motor gasoline sold in Canada.

9. Data Element: ROAD MOTOR VEHICLES - FUEL SALES - GROSS GASOLINE SALES

Item: Table 1.9

Source: Statistics Canada Catalogue 53-218
Road Motor Vehicles - Fuel Sales - Table 2 - Gross Gasoline Sales.

10. Data Element: ROAD MOTOR VEHICLES - FUEL SALES - NET DIESEL SALES

Item: Table 1.10

Source: Statistics Canada Catalogue 53-218
Road Motor Vehicles - Fuel Sales - Table 6 - Net Diesel Sales.

TABLE 2.1

RAILWAY TRANSPORT
CONSUMPTION
(('000 LITRES))

	DIESEL FUEL	BLEND OF DIESEL & LIGHT CUT FUELS
1970	2,002,280	
1971	2,119,555	2,223
1972	2,230,594	11,083
1973	2,190,543	77,884
1974	2,310,687	122,694
1975	2,199,089	135,096
1976	2,126,652	208,943
1977	2,202,199	213,971
1978	2,293,730	139,129
1979	2,425,375	91,972
1980	2,337,082	147,189
1981	2,282,581	114,975
1982	2,065,341	42,976
1983	2,046,585	95,726
1984	2,174,985	92,593
1985	2,259,441	104,984

TABLE 2.2

RAILWAY TRANSPORT
(('000))

	REVENUE PASSENGER KM	REVENUE PASSENGERS CARRIED	NON-REVENUE & REVENUE FREIGHT Tonne-KM
1971	3,517,750	24,119	177,077,118
1972	3,287,491	23,012	184,701,005
1973	2,572,992	19,822	194,458,679
1974	3,022,463	24,134	206,439,124
1975	2,930,347	23,571	202,312,503
1976	2,942,079	23,636	207,571,123
1977	2,966,408	23,862	217,384,365
1978	3,200,022	23,933	220,503,533
1979	3,174,850	23,708	238,933,769
1980	3,280,036	22,964	239,942,556
1981	3,275,868	24,331	240,246,957
1982	2,639,908	21,346	224,164,780
1983	2,932,291	21,199	231,871,179
1984	2,914,723	21,884	257,561,387
1985	3,040,502	22,937	245,397,431

SOURCE: STATISTICS CANADA CATALOGUE 52-209, 1970-81
STATISTICS CANADA CATALOGUE 52-215, 1982-83
GALLONS CONVERTED TO LITRES BY X 4.54609.
MILES CONVERTED TO KM BY X 1.6093

NOTE: TON-MILES CONVERTED TO TONNE-KM BY X .907185 X 1.6093.
SIGNIFICANT CHANGES IN REPORTING REQUIREMENTS FOR 1982 ONWARD
RENDER COMPARISONS WITH PREVIOUS YEARS UNRELIABLE.

TABLE 2.3

FREIGHT TRANSPORTED BY RAIL
(REVENUE PRODUCING)
(Millions)

YEAR	METRIC TONNES	TONNE- KMS	SHORT TONS	TON-MILES
1960	143.8	95,545	158.5	65,445
1961	138.9	96,104	153.1	65,828
1962	146.0	99,183	160.9	67,937
1963	155.8	110,605	171.7	75,760
1964	172.1	126,976	189.7	86,974
1965	178.5	129,963	196.8	89,020
1966	186.4	141,362	205.5	96,828
1967	191.0	137,381	210.5	94,101
1968	196.3	138,840	216.4	95,100
1969	188.3	140,827	207.6	96,461
1970	211.6	160,746	233.2	110,105
1971	214.5	173,090	236.4	118,560
1972	215.8	180,531	237.9	123,657
1973	241.2	190,901	265.9	130,760
1974	246.3	202,427	271.5	138,655
1975	226.0	197,211	269.1	135,082
1976	238.8	202,217	263.2	138,511
1977	247.2	212,410	272.5	145,493
1978	238.9	215,346	263.3	147,504
1979	257.9	233,823	284.3	160,160
1980	254.5	234,966	280.5	160,943
1981	246.9	234,367	272.2	160,533
1982	239.7	219,418		
1983	249.8	225,380		
1984	288.2	253,970		
1985	278.9	242,121		

Source: Statistics Canada Catalogue 52-207, 1960-1981
 Railway Transport, Part I
 Statistics Canada Catalogue 52-215, 1982-83
 Railway Transport in Canada, General Statistics.

Note: Ton-Miles converted to Tonne-Kms by $\times .907185 \times 1.6093$.
 Short Tons converted to Metric Tonnes by $\times .907185$.

DEFINITIONS

Railway Transport

Rail data is based on a census of common carrier railways in Canada which come within the legislative authority of the Canadian Transport Commission. During 1981, 32 such railways operated in Canada.

The operations of railway companies, although diverse in nature, have been found to conform closely to the establishment concept outlined in the Standard Industrial Classification (SIC 503) Railway Transport.

Not included in railway transport statistics are operations of private industrial railways. These carriers are not for-hire and exist solely to transport the goods of companies engaged in such activities as mining, forestry and manufacturing.

Glossary

Common Carrier: One who holds himself out to the general public to transport goods and/or passengers for compensation.

Non-Revenue Freight: Company materials and supplies transported without charge in freight trains of a particular railway for its own use.

Revenue Passenger: A person travelling on a train by right of fare.

Passenger-miles(Kilometres): The movement of a passenger a distance of one mile(kilometre). Derived by multiplying the number of passengers carried by the distance transported.

Passenger Car: A car equipped to carry passengers, baggage, etc., in passenger train service.

Passenger Car-miles(Kilometres): Miles(kilometres) run by passenger cars in transportation service, including both loaded and empty car-miles(kilometres).

Ton-mile (Kilometre): The movement of a ton a distance of one mile (kilometre). For the purposes of this series all weights quoted are in short tons(metric tonnes).

Train: A unit of equipment, or a combination of units of equipment (exclusive of light locomotives) in condition for movement over tracks by self-contained motor equipment. A self-propelled car moving on its own is a train, as is a 100-car freight train.

NOTE: In 1982 the reclassification of carriers and accounting methods for the reporting railways changed. The main thrust of the changes were to facilitate the separation by the railways of their rail and non-rail operations. The changes were quite significant, and in many cases render comparison with previously reported data inconceivable.

Old 1971-1981	New 1982-1986
Class I: CN, CP, VIA and their related operations which are defined herein as Canadian rail.	Class I: CN, CP, VIA, and their related operations which are defined herein as Canadian rail operations.
Class II: Other carriers having average gross revenues of \$500,000 or more annually from Canadian rail transport operations.	Class II: Other carriers involved in Canadian rail transportation operations.
Class III: Other carriers having average gross revenues of less than \$500,000 annually.	Class III: Other companies which report under the Railway Act such as terminal bridge and tunnel companies.
Class IV: Other companies which report under the Railway Act, such as terminal, bridge and tunnel companies.	Class IV: None.

DATA DICTIONARY

RAIL

1. Data Element: RAILWAY TRANSPORT - DIESEL & CRUDE OIL

Item: Table 2.1

Source: Statistics Canada Catalogue 52-209, 1970-81
Railway Transport Part III, Equipment, Track & Fuel Statistics
Table 1 Gallons converted to litres x 4.54609.

Statistics Canada Catalogue 52-215, 1982-86
Railway Transportation in Canada Table 15, Total(2)

2. Data Element: RAILWAY TRANSPORT

Item: Table 2.2

Source: Statistics Canada Catalogue 52-210, 1971-81
Railway Transport Part IV Operating & Traffic Statistics
Table 1 Miles converted to km x 1.6093.
Ton-Miles converted to Tonne-Km x (.907185x1.6093).

Statistics Canada Catalogue 52-215, 1982-86
Railway Transport in Canada

Table 17, Grand Total:
Revenue Passenger Kilometres - Line 8
Revenue Passengers Carried - Line 7
Non-Revenue & Revenue Freight Tonne-Km - Line 5

3. Data Element FREIGHT TRANSPORTED BY RAIL (REVENUE PRODUCING)

Item: Table 2.3

Source: Statistics Canada Catalogue 52-207, 1960-1981
Railway, Transport, Part I
Table supplied by Transport Canada.

Statistics Canada Catalogue 52-215, 1982-86
Railway Transport in Canada, General Statistics
Revenue:

Metric Tonnes-Table 17-Grand Total-Line 1
Tonne-Kms-Table 17-Grand Total-Line 2.

NOTE: Ton-Miles converted to Tonne-Kms by x .907185 x 1.6093.
Short tons converted to metric tonnes by x .907185.
Gallons converted to litres by x .454609.

TABLE 3.1

GRAND TOTAL CANADIAN CARRIERS

	KILOMETRES FLOWN	NUMBER OF PASSENGERS	PASSENGER KILOMETRES	PASSENGER TONNE-KILOMETRES	GOODS TONNE-KILOMETRES
1971	369,190,335	16,128,712	19,567,306,584	1,775,116,702	595,496,860
1972	385,555,822	18,079,859	23,081,663,260	2,093,933,868	705,233,274
1973	430,948,514	22,094,309	27,588,010,200	2,502,742,903	759,369,446
1974	464,402,080	24,621,116	31,383,903,875	2,847,100,684	804,111,189
1975	483,199,797	25,626,253	33,251,597,630	3,016,535,059	824,573,194
1976	484,212,195	26,643,662	34,686,231,458	3,146,682,889	841,663,317
1977	498,974,016	28,431,376	37,555,722,909	3,406,998,850	850,770,233
1978	505,523,556	30,352,478	40,183,977,944	3,645,430,203	892,006,274
1979	549,835,425	34,088,972	47,176,058,961	4,279,741,306	980,833,273
1980	571,499,542	35,530,697	48,783,063,707	4,425,526,365	976,361,284
*1981	384,418,152	23,466,218	35,740,896,000	3,574,089,600	865,260,982
*1982	379,433,073	20,732,352	32,527,862,553	3,252,786,255	918,860,269
1983	257,700,232	15,353,530	17,624,928,599	1,762,492,860	392,974,485
1984	271,931,942	18,736	18,813,203,800	1,881,320,380	429,958,731
1985	301,249,411	19,601,200	19,399,599,456	1,939,959,946	458,709,162

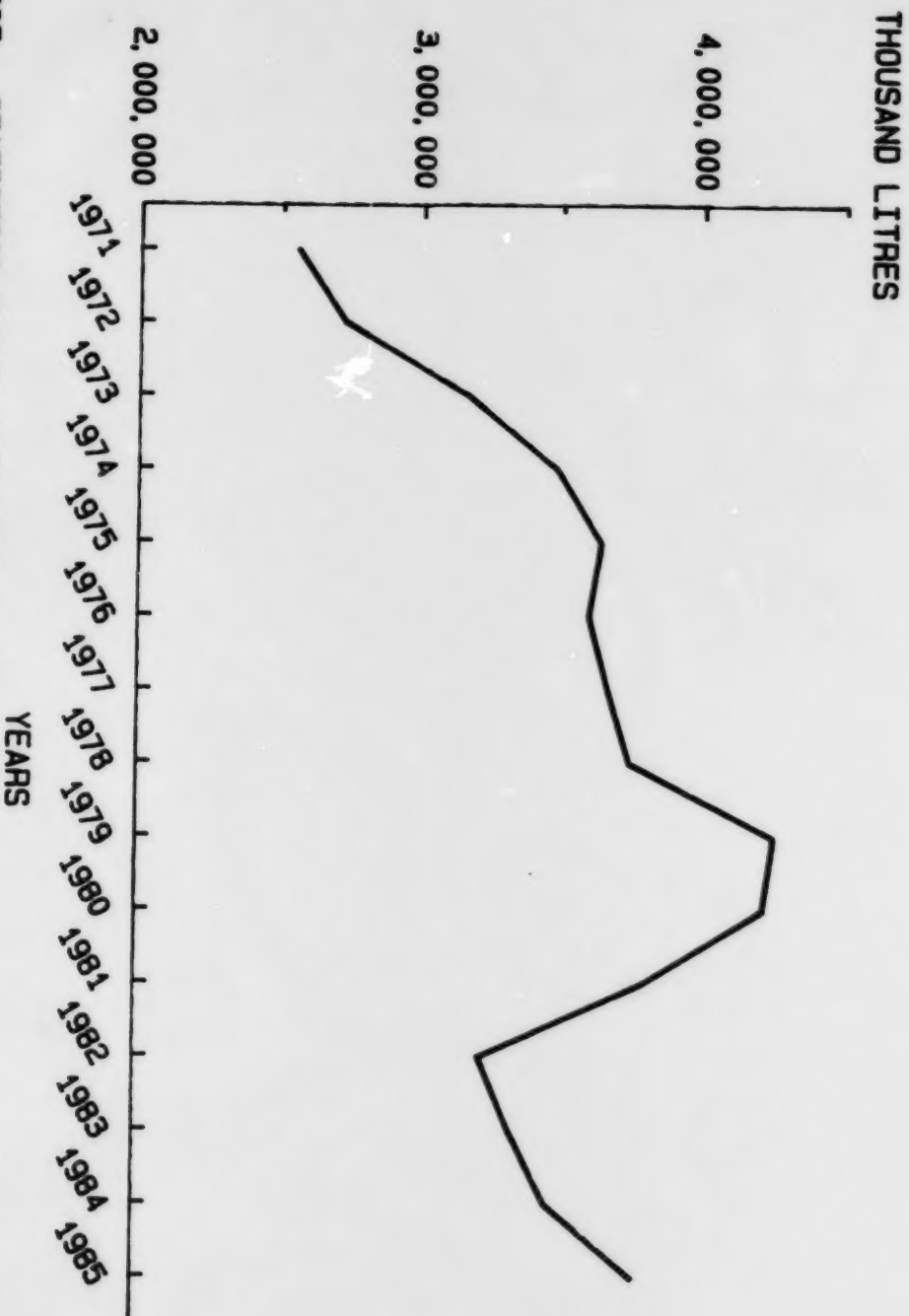
*NOTE: From 1981 on the reporting universe has changed.
Scheduled Foreign Carriers and Class 5 Specialty Carriers have
been eliminated completely.

SOURCE: Statistics Canada Catalogue 51-002
Air Carrier Operations in Canada.

Miles converted to kilometres multiply by 1.6093.
Ton-Miles converted to Tonne-Kilometres multiply by .907185 and 1.6093.

FIG. 3.1

AIR CARRIER OPERATIONS IN CANADA TURBO FUEL CONSUMPTION



SOURCE: STATISTICS CANADA CATALOGUE 51-002.
1971-80 converted to litres (gals. x 4.54609)
Number of reporting carriers reduced in 1981-82.

TABLE 3.2

GRAND TOTAL
CANADIAN AND FOREIGN AIR CARRIERS

	Turbo (Litres)	Gasoline (Litres)
1971	2,553,477,872	75,644,628
1972	2,724,594,495	95,578,410
1973	3,165,986,311	81,879,586
1974	3,484,765,625	84,950,356
1975	3,643,295,002	84,620,196
1976	3,598,957,423	80,390,892
1977	3,670,191,162	83,175,731
1978	3,748,095,501	81,381,271
1979	4,258,076,469	80,824,657
1980	4,218,896,938	82,188,725
*1981	3,793,125,487	59,280,321
*1982	3,221,955,930	49,363,278
1983	3,334,272,203	49,664,409
1984	3,463,730,742	46,191,682
1985	3,769,944,407	53,071,442

*NOTE: Converted gallons to litres by multiplying by 4.54609.
From 1981 on the reporting universe changed:
Scheduled Foreign Carriers and Class 5 Specialty Carriers were
eliminated completely.

SOURCE: Statistics Canada Catalogue 51-002
Air Carrier Operations in Canada.

TABLE 3.3

CANADIAN AVIATION FUEL SALES

Year	Jet A Kero (cubic metres)	Jet B Napha (cubic metres)	Aviation Gasoline*
1973	1,213,755	2,082,833	240,749
1974	1,388,079	2,244,922	241,543
1975	2,060,268	1,784,877	240,113
1976	2,231,096	1,585,445	247,105
1977	2,199,473	1,644,242	243,132
1978	2,437,838	1,561,291	254,574
1979	2,925,630	1,602,625	243,161
1980	2,854,328	1,720,912	238,188
1981	2,779,492	1,685,256	223,997
1982	2,653,338	1,406,407	180,239
1983	2,667,906	1,237,543	179,479
1984	3,019,731	1,123,795	177,412
1985	3,289,688	1,010,102	176,462

Source: Statistics Canada RPP Catalogue 45-004

Note: Barrels converted to cubic metres by multiplying by .15891.
Aviation Gasoline:

1972-1977 Stats Canada 57-207
1978 Stats Canada 57-003
1979-83 Stats Canada 45-004

TABLE 3.4

SIZE OF AIR CARRIER FLEETS

Company	Model	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
AIR CANADA													
Douglas	DC93	45	45	45	43	43	43	41	39	35	35	35	35
Douglas	DC91	8	8	8	4	3	3	-	-	-	-	-	-
Douglas	DC9	-	-	-	-	-	-	-	1	-	-	-	-
Douglas	DC84	10	10	8	-	-	-	-	-	-	-	-	-
Douglas	DC85	8	8	8	8	8	8	8	6	6	1	-	-
Douglas	DC86	19	19	12	19	19	19	19	19	19	19	14	8
Boeing	727	14	14	14	14	20	28	36	38	39	39	36	36
Boeing	747	6	6	6	6	7	7	7	7	7	7	4	5
Boeing	767	-	-	-	-	-	5	-	-	-	4	10	14
Lockheed	101	12	10	12	12	12	12	11	13	14	14	13	12
Lockheed	105	-	-	-	-	-	-	-	4	4	4	3	6
Total		122	120	113	106	112	126	126	127	128	129	119	116
CP AIR													
Douglas	DC84	5	5	5	5	5	4	-	-	-	-	-	-
Douglas	DC85	2	2	2	1	1	1	1	-	-	-	-	-
Douglas	DC86	5	5	5	5	5	5	5	-	-	-	-	-
Douglas	DC10	-	-	-	-	-	3	5	7	8	8	6	9
Boeing	727	6	6	5	2	2	2	2	-	-	-	-	-
Boeing	737	7	7	7	7	10	12	17	19	19	19	25	25
Boeing	747	4	4	4	4	4	4	4	4	4	3	1	1
Total		29	29	28	24	27	31	34	30	31	31	34	35
NORDAIR													
Douglas	DC85	-	-	-	-	2	2	2	2	2	-	-	-
Douglas	DC86	1	1	1	1	-	-	-	-	-	-	-	-
Douglas	DC3	2	2	-	-	-	-	-	-	-	-	-	-
Douglas	DC10	-	-	-	-	-	-	-	-	-	-	-	-
Boeing	737	5	6	6	6	9	10	11	10	9	9	4	10
Lockheed	188	3	3	3	2	2	2	2	2	2	2	2	2
Fairchild	FA22	3	3	3	3	3	3	3	3	5	5	5	5
Skyvan	SN7	1	1	1	-	-	-	-	-	-	-	-	-
Grumman	G73	1	1	-	-	-	-	-	-	-	-	-	-
DeHavilland D16		3	3	-	-	-	-	-	-	-	-	-	-
Total		19	20	14	12	16	17	18	17	18	16	11	17
EASTERN PROVINCIAL AIRWAYS													
McKerside/FA76		1	1	2	2	3	3	4	3	4	5	4	4
Boeing	737	6	7	7	6	6	6	6	7	6	6	6	6
Douglas	DC3	2	3	1	-	-	-	-	-	-	-	-	-
Total		9	11	10	8	9	9	10	10	10	11	10	10
PACIFIC WESTERN AIRLINES													
Lockheed	100	4	4	3	3	4	4	4	2	2	2	-	-
Boeing	712	1	1	1	1	-	-	-	-	-	-	-	-
Boeing	727	2	2	1	1	1	1	1	1	1	1	-	-
Boeing	732	2	2	1	1	-	-	-	-	-	-	-	-
Boeing	737	13	14	16	15	14	21	24	27	26	17	24	21
Convair	CV64	5	5	3	-	-	-	-	-	-	2	2	-
McDon	YS11	2	2	2	2	-	-	-	-	-	-	-	-
Fokker	FA28	2	2	2	2	-	-	-	-	-	-	-	-
Argosy	AW65	2	2	-	-	-	-	-	-	-	-	-	-
Total		33	34	29	25	19	26	27	30	31	20	24	21
QUEBEC AIR													
Fairchild	FA27	4	4	4	4	3	3	2	-	-	-	-	-
BAC	BA11	3	3	3	3	3	3	3	3	3	5	4	-
Boeing	712	2	2	2	2	1	-	-	-	-	-	-	-
Boeing	727	1	1	1	1	1	-	-	-	-	-	-	-
Boeing	737	-	-	-	-	-	2	3	4	1	1	5	4
McKerside/FA76		-	-	-	-	-	-	-	-	-	4	4	4
Beech	BE99	-	-	-	-	-	-	-	-	-	2	-	-
Douglas	DC86	-	-	-	-	-	-	-	-	-	-	2	2
Convair	CV580	-	-	-	-	-	-	-	-	-	3	3	3
Total		10	10	10	10	8	8	8	7	6	11	14	13
WARD AIR													
AIRBUS	A300	-	-	-	-	-	-	-	-	-	-	-	3
BOEING	747	-	-	-	-	-	-	-	-	-	-	-	4
DOUGLAS	DC10	-	-	-	-	-	-	-	-	-	-	-	3
Total		-	-	-	-	-	-	-	-	-	-	-	10

Source: Transport Canada.

--- No data prior to 1986 ---

TABLE 3.5
LEVELS I, II AND III AIR CROKIER FUEL CONSUMPTION, COST AND OPERATING EXPENSES
1981-1984

	Turbo Fuel Consumption (Litres)	Turbo Fuel Cost (\$)	Cost per Litre (cents/L)	Aircraft Operating Expenses (\$)	Maintenance Expenses (\$)	General Services & Administration Expenses (\$)	Depreciation Expense (\$)	Total Operating Expenses (\$)	2 Fuel Cost / Operating Expenses (%)
Level I									
1984	3,213,531,082	1,004,122,854	31.2	1,455,340,875	411,568,495	1,749,198,272	233,409,878	4,849,366,495	24.46
1983	3,106,033,064	994,791,500	32.0	1,502,456,545	436,769,494	1,747,179,070	245,022,324	3,849,525,520	25.84
1982	3,344,173,167	1,073,472,312	32.1	1,502,456,545	436,769,494	1,747,179,070	245,022,324	3,931,421,433	27.30
1981	3,575,477,177	1,034,914,189	28.9	1,522,190,636	405,207,063	1,505,406,440	218,746,486	3,731,631,425	27.73
Level II									
1984	77,285,705	28,730,859	37.2	49,043,531	32,320,341	20,192,931	6,279,403	133,765,750	21.40
1983	65,424,999	25,090,465	39.6	47,467,544	33,107,013	26,021,606	7,372,337	116,644,506	22.20
1982	62,995,700	21,698,394	34.5	40,337,340	31,996,220	23,564,993	7,125,512	113,968,500	19.04
1981	63,579,798	19,819,638	31.2	40,337,340	31,996,220	23,564,993	7,125,512	113,024,073	17.54
Level III									
1984	172,913,955	71,305,386	41.2	216,582,006	106,763,053	70,134,057	31,899,724	456,165,101	15.63
1983	161,707,593	66,722,337	41.3	217,270,117	122,636,101	68,746,553	31,869,714	425,300,520	15.69
1982	151,649,373	62,474,931	41.2	204,422,054	137,213,630	70,835,752	28,984,615	440,522,565	14.10
1981	154,068,512	57,755,702	37.5	204,422,054	137,213,630	70,835,752	28,984,615	441,456,051	13.00
Total I-III									
1984	3,463,730,742	1,104,159,099	31.9	1,721,775,292	550,659,889	1,847,526,060	271,509,005	4,694,917,306	23.52
1983	3,333,166,456	1,087,404,302	32.6	1,767,194,206	592,512,688	1,841,941,229	284,264,375	4,391,550,246	24.76
1982	3,558,777,328	1,157,645,637	32.5	1,774,950,030	574,417,721	1,681,887,183	254,056,613	4,405,912,498	25.81
1981	3,793,125,407	1,112,489,529	29.3	1,774,950,030	574,417,721	1,681,887,183	254,056,613	4,206,111,549	25.96

Sources: Civil Aviation Unit, Aviation Statistics Centre

The break out of non-fuel expenses into separate components not available for 1984 due to a change in reporting format.

DEFINITIONS

Air Carrier Operations in Canada

Quarterly (catalogue 51-002) and year-to-date operational and financial data for the entire Canadian air transport industry.

The statistical data are collected under authority of the Aeronautics Act at the request of the Air Transport Committee of the Canadian Transport Commission. No commercial air service may be operated in Canada without a valid licence issued by the Air Transport Committee and every air carrier is required to file regular statistical reports on its operations as a condition of holding a valid licence.

From 1971 to 1980 turbo and gasoline figures are in gallons but from 1981 reporting changed to litres. 1 gallon = 4.54609 litres.

During 1980, an intensive review was undertaken to ascertain the essential requirements for air carrier statistics of the Canadian Transport Commission, Transport Canada and Statistics Canada. As a result of this review, substantial changes were made to the reporting requirements for air carriers and, in due course, the Air Carrier Regulations were amended to reflect these changes.

The reporting level structure was completely redefined, in an attempt to stratify air carriers into more homogeneous groups than had previously been the case.

Quarterly reporting of operational and financial statistics became the standard for large carriers which were required previously to report monthly.

The detail for the reporting of services under Specialty (Class 7) licences was reduced. The only type of Specialty activity which still needs to be segregated for reporting purposes is Flying Training.

The requirement for Foreign air carriers operating Scheduled (Class 8) services to and from Canada to report operational and financial statistics was eliminated.

Some highlights of the changes in level definitions which came into effect in 1981 are as follows:

- a) Levels are now based on a combination of factors, namely: traffic carried, licences held and operating revenue.
- b) Level I (which in 1980 included Air Canada and CP Air) includes in 1981, Air Canada, CP Air, Eastern Provincial, Nordair, Quebecair, Pacific Western and Wardair.

c) Level II (which in 1980 included Eastern Provincial, Nordair, Quebecair and Pacific Western) includes in 1981, nine of the larger carriers, based on the traffic carried, which were formerly in Level III.

d) Level III in 1981 includes 122 air carriers which generated operating revenues of half a million dollars or more and did not meet the criteria for either of Level I or II.

Glossary:

Passenger Kilometre: represents the carriage of one passenger for one kilometre. Passenger kilometre figures are obtained by totalling the number of kilometres flown by each passenger.

Passenger tonne-kilometre: is calculated by multiplying the number of passenger kilometres carried by an arbitrary weight of 100 kilograms which is assumed to be the average weight for a passenger and the free baggage allowance. The result is then divided by 1000 to give a tonne-kilometre figure.

Goods tonne-kilometre: represents the carriage of one tonne of goods over one kilometre. Tonne-kilometre figures are obtained by totalling the number of kilometres flown with each tonne of goods.

DATA DICTIONARY

AIR

1. Data Element: GRAND TOTAL CANADIAN CARRIERS

Item: Table 3.1

Source: Statistics Canada Catalogue 51-002
Air Carrier Operations in Canada
Table 1.1 Yr-to-Date Grand Total
Kilometres Flown: Line 11
Number of Passengers: Line 6
Passenger Kilometres: Line 2
Passenger Tonne-Km: Line 3
Goods Tonne-Km: Line 4
Converted Miles to Km x 1.6093.
Converted Ton-Miles to Tonne-Km x (.907185x1.6093).

Statistics Canada Catalogue 51-002, 1981-1982
Air Carrier Operations in Canada
Table 3 - Total
Kilometres Flown: Line 14
Number of Passengers: Line 2
Passenger Kilometres: Line 6
Passenger Tonne-Km: Line 7
Goods Tonne-Km: Line 10.

3.2 Data Element: GRAND TOTAL CANADIAN & FOREIGN CARRIERS
TURBO & GASOLINE FUEL CONSUMPTION

Item: Table 3.2

Source: Statistics Canada Catalogue 51-002
Air Carrier Operations in Canada.
1971-80:
Turbo Fuel: Table 1.1-Grand Total Canadian Carriers & Scheduled
Foreign Carriers-Line 13
Gasoline Fuel: Table 1.1-Grand Total Canadian Carriers &
Scheduled Foreign Carriers-Line 15
1981-82:
Turbo Fuel: Table 7-Total Levels I-III-Line 15
Gasoline Fuel: Table 7-Total Levels I-III-Line 17
Note: Converted gallons to litres by multiplying by 4.54609.
From 1981 on the reporting universe changed. Scheduled Foreign
Carriers and Class 5 Specialty Carrier have been eliminated completely.

3.3 Data Element: CANADIAN JET FUEL SALES

Item: Table 3.3

Source: Statistics Canada Catalogue 45-004

Refined Petroleum Products

Barrels converted to cubic metres by multiplying by .15891.

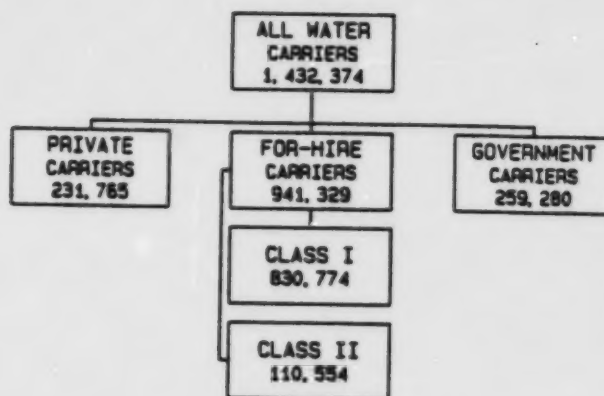
Aviation Gasoline:

1972-1977 SC Catalogue 57-207

1978 SC Catalogue 57-003

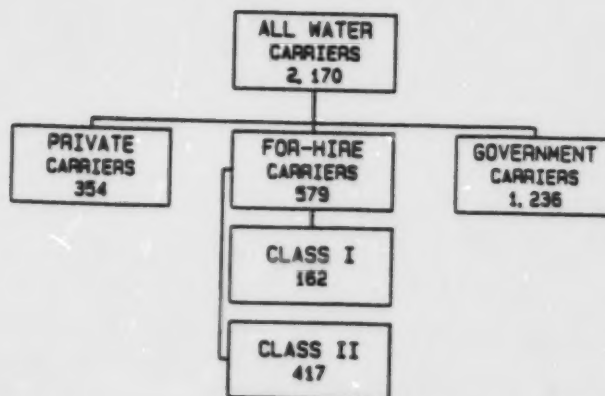
1979-1986 SC Catalogue 45-004.

FIG. 4.1
1983 WATER TRANSPORTATION
VESSEL FUEL OIL CONSUMPTION ('000 LITRES)



SOURCE: Statistics Canada Catalogue 54-205.
 Fuel Oil includes Bunker 'C' intermediate diesel oil and gas oil.

FIG. 4.2
1983 WATER TRANSPORTATION
VESSEL GASOLINE CONSUMPTION ('000 LITRES)



SOURCE: Statistics Canada Catalogue 54-205.

TABLE 4.1

FUEL CONSUMED IN WATER TRANSPORTATION

YEAR	CARRIER	FUEL OIL ('000 litres)	GASOLINE (Metric Tons)	COAL (Metric Tons)	LUBRICATING OILS ('000 Litres)	OTHER
1975	FOR-HIRE	1,621,403	2,022	2,490	27,876	116
	PRIVATE	153,584	1,451	637	916	
	TOTAL	1,774,987	3,474	3,127	28,792	116
1976	FOR-HIRE	1,293,987	1,367	13	5,711	29
	PRIVATE	258,394	57	2	475	4
	GOVERNMENT	269,990	41		2,668	
	TOTAL	1,822,371	1,464	15	8,854	33
1977	FOR-HIRE	1,334,732	3,623		6,577	292
	PRIVATE	333,695	117		767	4,850
	GOVERNMENT	293,349	1,386		3,910	31
	TOTAL	1,961,776	5,127		11,254	5,174
1978	FOR-HIRE	1,321,375	1,707		6,832	487
	PRIVATE	196,191	102		558	3
	GOVERNMENT	316,286	1,526		2,968	3
	TOTAL	1,833,852	3,335		10,358	49
1979	FOR-HIRE	1,182,351	998		6,940	12
	PRIVATE	208,944	75		606	5
	GOVERNMENT	325,741	3,791		3,448	2,651
	TOTAL	1,717,036	4,863		10,994	2,668
1980	FOR-HIRE	1,135,056	581	11	7,292	5,948
	PRIVATE	185,839	195		674	14
	GOVERNMENT	350,974	11		3,117	3,705
	TOTAL	1,671,869	786	11	11,082	9,667
1981	FOR-HIRE	1,115,122	833		8,049	312
	PRIVATE	216,684	96		723	
	GOVERNMENT	435,310	47		157,311	4,137
	TOTAL	1,767,116	976		166,083	4,459
1982	FOR-HIRE	839,675	754	6,411	6,813	210
	PRIVATE	182,475	54		727	
	GOVERNMENT	263,034	748		4,627	1,495
	TOTAL	1,285,184	1,556	6,411	12,167	1,705
1983	FOR-HIRE	941,329	579	65	7,023	6
	PRIVATE	231,765	354		1,272	1
	GOVERNMENT	259,280	1,236	39	5,232	1,902
	TOTAL	1,432,374	2,170	104	13,527	1,909

SOURCE: STATISTICS CANADA CATALOGUE 54-205.

FUEL OIL INCLUDES BUNKER 'C', INTERMEDIATE, DIESEL OIL AND GAS OIL.

TABLE 4.2

DOMESTIC MARINE LOADINGS AND UNLOADINGS BY REGION
(Millions of short tons)

LOADINGS					UNLOADINGS						
YEAR	ATLANTIC	QUEBEC	ONTARIO BC/MNT/YUKON	CANADA	YEAR	ATLANTIC	QUEBEC	ONTARIO BC/MNT/YUKON	CANADA		
1960	7.0	8.7	14.6	10.5	40.8	1960	5.7	12.4	12.3	10.4	40.8
1961	7.2	9.3	18.1	11.5	46.1	1961	5.5	15.3	13.9	11.7	46.4
1962	7.0	8.0	15.2	13.6	43.8	1962	5.3	12.8	12.1	13.5	43.8
1963	6.8	7.6	17.4	14.0	45.8	1963	5.3	14.0	12.6	14.2	46.1
1964	7.0	8.4	21.4	15.1	52.0	1964	5.7	17.2	13.9	15.1	51.9
1965	6.4	9.4	19.7	17.6	53.1	1965	4.9	16.3	14.1	17.8	53.1
1966	6.8	10.5	22.5	21.0	60.8	1966	5.0	18.5	16.1	21.1	60.7
1967	6.3	11.7	16.7	20.2	54.9	1967	4.7	14.6	15.3	20.3	54.9
1968	6.8	13.1	16.5	19.7	56.1	1968	5.5	14.4	16.5	19.7	56.1
1969	6.2	12.8	17.1	21.0	57.2	1969	6.0	13.5	16.5	21.1	57.2
1970	5.7	14.6	24.6	18.2	63.2	1970	5.9	19.3	19.7	18.3	63.2
1971	6.4	15.0	24.6	14.8	60.8	1971	6.1	21.4	18.4	14.9	60.8
1972	7.1	13.6	26.1	14.2	61.0	1972	6.8	21.7	18.2	14.3	61.0
1973	8.6	13.0	24.5	14.9	61.0	1973	7.3	20.6	18.1	15.0	61.0
1974	9.3	12.4	23.8	13.6	59.1	1974	8.0	20.1	18.3	12.7	59.1
1975	10.0	13.4	25.8	10.7	59.9	1975	7.7	23.9	17.7	10.6	59.9
1976	8.7	12.8	25.7	12.2	59.4	1976	6.7	22.8	17.7	12.2	59.4
1977	9.8	14.0	27.3	13.2	64.3	1977	7.3	24.1	19.7	13.2	64.3
1978	8.9	12.6	27.3	18.1	66.9	1978	7.5	23.3	18.3	17.8	66.9
1979	8.9	14.8	29.1	34.2	87.0	1979	7.8	23.1	21.9	34.2	87.0
1980	7.1	17.4	29.4	37.3	91.2	1980	7.1	28.3	18.8	37.0	91.2
1981	7.2	15.0	27.6	28.7	78.6	1981	7.8	25.6	16.4	28.8	78.6
1982	5.5	13.1	28.2	25.8	72.6	1982	7.4	25.6	13.7	25.9	72.6
1983	4.9	14.6	28.2	22.6	70.3	1983	7.8	25.5	14.4	22.6	70.3
1984	5.5	15.7	27.7	19.7	68.6	1984	7.8	24.4	17.7	19.7	68.6

Source: 1960-1977, Statistics Canada Catalogue 52-204.
1978-1982, Transportation & Communications Division
Statistics Canada.

Note: Prelim have been eliminated because the amounts
are insignificant.

TABLE 4.3

INTERNATIONAL MARINE LOADINGS AND UNLOADINGS BY REGION
INTERNATIONAL MARINE LOADINGS AND UNLOADINGS BY REGION
(Millions of short tons)

YEAR	LOADINGS					UNLOADINGS				
	ATLANTIC	QUEBEC	ONTARIO	BC/WMT/YUKON	CANADA	ATLANTIC	QUEBEC	ONTARIO	BC/WMT/YUKON	CANADA
1960	10.6	18.6	8.7	12.1	50.6	6.4	11.3	19.0	2.3	39.1
1961	10.6	20.1	8.3	14.2	53.8	6.7	12.6	17.7	2.1	39.2
1962	9.7	26.2	9.4	14.3	60.3	6.9	13.4	19.1	2.4	41.9
1963	10.4	32.0	9.0	16.3	68.4	7.5	14.1	22.1	2.4	46.2
1964	11.8	41.6	10.4	19.0	83.5	8.3	13.9	22.4	2.9	47.6
1965	12.0	41.1	9.2	19.1	82.1	9.0	16.6	24.1	3.9	53.6
1966	11.3	42.5	9.0	20.5	84.0	9.6	16.0	23.7	3.7	53.0
1967	8.6	39.1	9.5	22.2	80.0	9.8	15.0	21.6	3.8	50.2
1968	9.0	43.1	9.6	24.4	86.7	11.2	16.0	22.6	4.2	54.1
1969	9.7	37.3	9.2	20.7	77.6	11.7	17.9	22.8	4.6	57.0
1970	11.0	56.4	10.4	27.1	105.6	12.0	18.8	24.6	5.1	60.9
1971	11.3	50.3	9.8	33.6	105.7	15.4	17.6	22.8	5.3	68.4
1972	15.1	47.4	10.7	35.2	109.1	18.5	19.6	25.0	5.0	72.7
1973	15.9	58.1	10.9	38.5	123.9	21.3	22.8	23.6	5.6	66.9
1974	15.3	53.9	11.3	35.9	112.9	21.4	19.2	20.7	4.4	70.3
1975	12.6	55.4	9.8	34.4	112.9	17.1	15.7	24.8	4.7	62.3
1976	12.4	65.7	10.9	36.8	126.6	16.0	20.1	25.9	5.2	68.1
1977	13.7	66.0	11.0	40.5	132.0	19.5	18.8	31.4	4.6	74.3
1978	15.1	57.5	11.2	44.0	128.4	19.7	21.8	27.9	5.9	75.3
1979	15.9	75.5	11.0	45.4	148.4	15.4	24.9	28.3	6.6	53.7
1980	17.8	69.9	12.3	57.8	160.3	9.9	16.7	22.7	4.4	60.1
1981	16.9	73.9	10.0	59.0	130.1					
1982	12.7	58.3	9.8	56.7	129.5					
1983					145.3					
1984										

Source: 1960-1977, Statistics Canada Catalogue 52-204.
1978-1982, Transportation & Communications Division
Statistics Canada.

Note: Prairies have been eliminated due to the amounts
being too small to express.

DEFINITIONS

Water Transportation

Data presented in this section are produced from the results of a Statistics Canada census of Canadian-domiciled water carriers. Only those for-hire, government and sightseeing carriers reporting total gross operating revenues of \$100,000 and more in were included in the survey. Sightseeing carriers are included in "for-hire".

The establishment is defined as the smallest unit which is a separate operating entity capable of reporting: operating expenses; fuel consumption; employment; tonnage carried. In some instances, two or more statistical units are reported and processed as one, because separate accounts are not available from the respondents. Accordingly, the tabulation unit may represent several associated firms.

The universe of water carriers consists of all Canadian-domiciled undertakings engaged in the operation of vessels for the transport of freight and passengers overseas or on inland and coastal waters and charters of such vessels. Included are ferry services, harbour vessel operations, marine towing of log booms, vessels and scows, and tugboat services.

The survey universe is maintained by an annual review of lists of carriers maintained by the Canadian Transport Commission, Transport Canada, the Business Register Division of Statistics Canada and the Transportations and Communications Division.

Those for-hire water transport and sightseeing carriers reporting total gross operating revenues of less than \$100,000 for 1980 were not included in the 1981 survey. Beginning in 1978, no data are available for Class III carriers.

To reduce response burden, those for-hire water transport and sightseeing carriers reporting total gross operating revenues of less than \$100,000 for 1981 were not included in the 1982 survey. Beginning with the 1978 publication, no data are available for Class III carriers.

There are four groups:

The Canadian for-hire water transportation carriers which will also be called the Water Transportation industry;

The Canadian sightseeing carriers;

The Government water transportation carriers; and,

The Canadian private water transportation carriers.

The for-hire water transportation carriers included establishments whose activities involve time and voyage charters (vessels and crew) or bareboat charters (vessels only) from others.

The sightseeing carriers are involved in passenger sightseeing and tourism. As a group they fall under other transportation, which includes various transportation activities not included in the definitions of the major modes. Except for the summary table, these carriers are included with the for-hire carriers.

The government carriers are any federal, provincial, territorial or municipal carriers engaged in the transport of commodities or passengers. Crown corporations are included in this group, as are some heavily subsidized services operated for government agencies. The group is tabulated separately in order to avoid distortion of the for-hire carrier data.

The private carriers are involved in the transport of goods or passengers for their own (or a parent) company. While water transport is an important part of their activities it is not the principal source of revenue for the company. Among such private carriers are those involved in carrying petroleum or wood products, or engaged in dredging operations.

The survey universe did not include the following:

- for-hire, government and sightseeing carriers reporting less than \$100,000 total gross revenues in the previous year;
- private pleasure craft;
- fishing operations;
- ship repairs;
- defence;
- services incidental to water transport; and
- carriers domiciled outside Canada.

Glossary

Fuel Oil: Includes Bunker "C", intermediate, diesel oil and gas oil in this general category of vessel fuel.

DATA DICTIONARY

MARINE

1. Data Element: FUEL CONSUMED IN WATER TRANSPORTATION ('000 LITRES)

Item: Table 4.1

Source: Statistics Canada Catalogue 54-205, 1975-82
Water Transportation
Table 6 - Quantity & Cost of Fuel...
For Hire: Line 15
Private: Line 22
Government: Line 29
Total: Line 30.

2. Data Element: DOMESTIC MARINE LOADINGS AND UNLOADINGS BY REGION

Item: Table 4.2

Source: Transport Canada.

Note: Prairies have been eliminated due to the amounts being too small to express.

3. Data Element: INTERNATIONAL MARINE LOADINGS AND UNLOADINGS BY REGION

Item: Table 4.3

Source: Transport Canada.

Note: Prairies have been eliminated due to the amounts being too small to express.

FIG. 5.1

ANNUAL VEHICLE STOCK OF PASSENGER CARS & TRUCKS TOTAL ROAD MOTOR VEHICLES

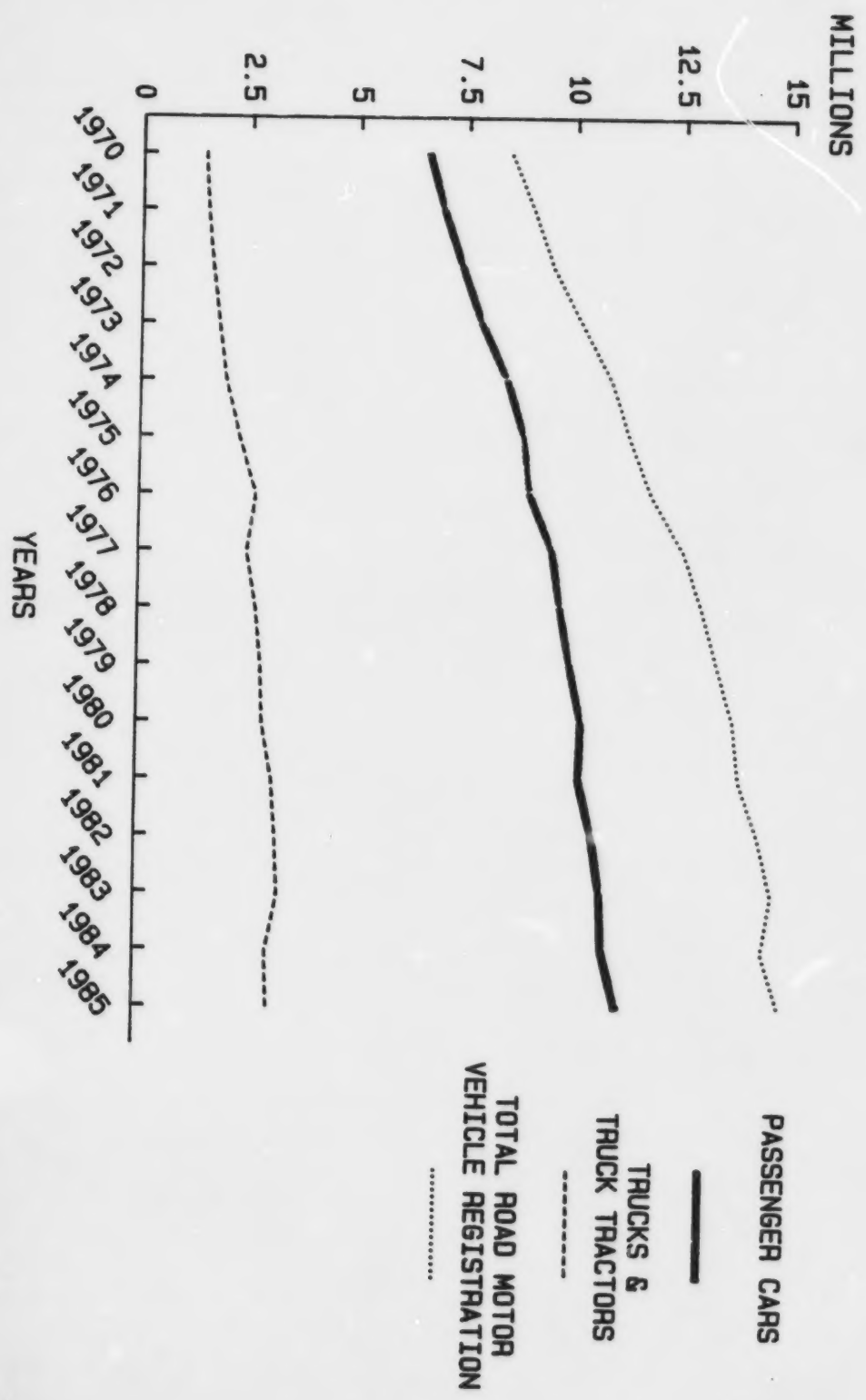


TABLE 5.1

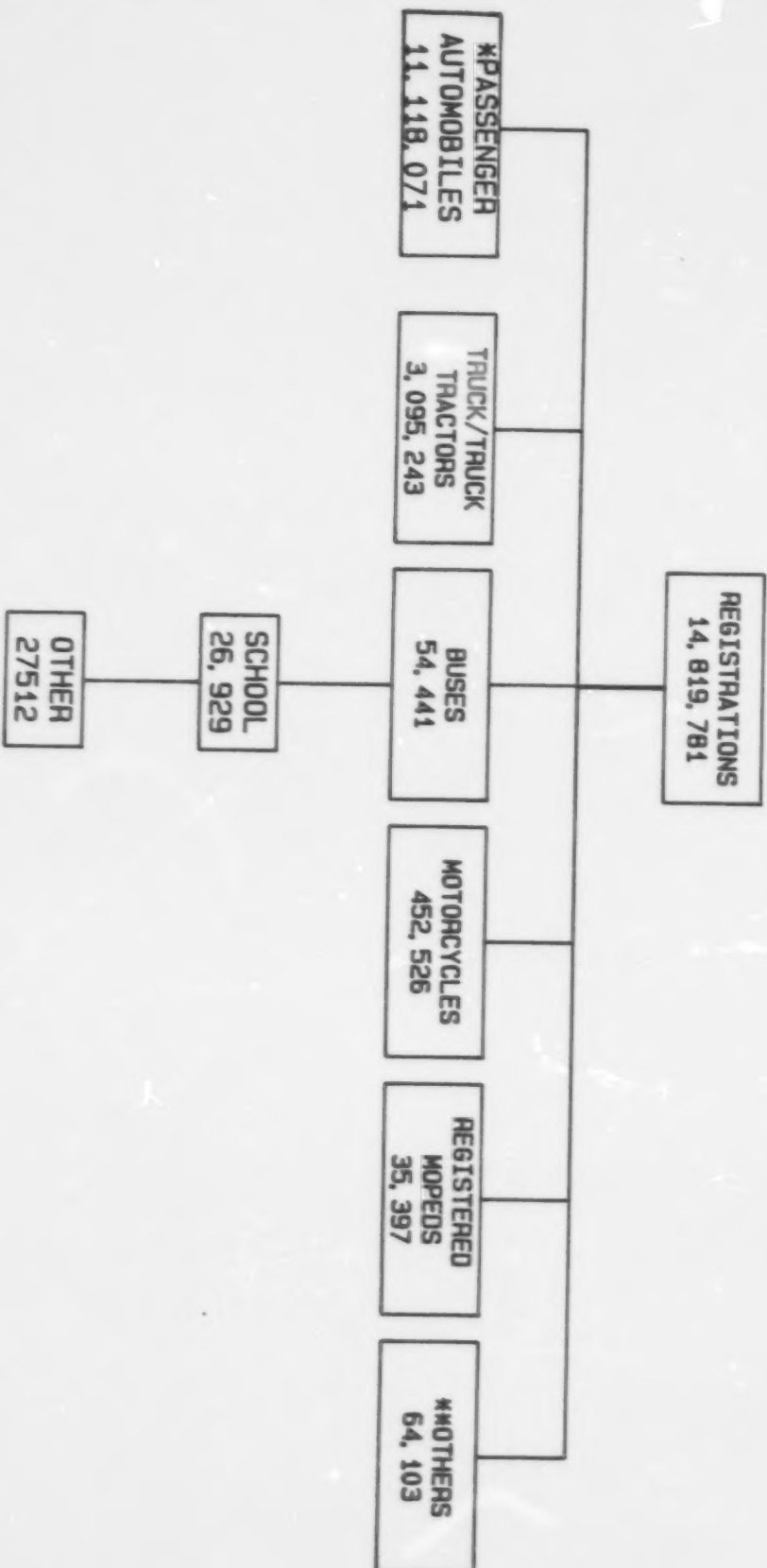
ANNUAL VEHICLE STOCK

YEAR	PASSENGER CARS	TRUCKS & TRUCK TRACTORS	TOTAL ROAD MOTOR VEHICLE REGISTRATIONS
1970	6,602,176	1,440,079	8,497,339
1971	6,967,247	1,514,976	9,022,136
1972	7,407,275	1,639,760	9,481,432
1973	7,866,084	1,799,667	10,158,440
1974	8,472,224	1,978,947	10,854,558
1975	8,870,307	2,129,467	11,278,513
1976	9,016,258	2,268,214	11,786,309
1977	9,554,290	2,494,704	12,547,247
1978	9,744,994	2,717,832	12,975,449
1979	9,985,146	2,854,217	13,338,700
1980	10,255,511	2,902,730	13,717,152
1981	10,199,388	3,137,987	13,851,482
1982	10,530,355	3,239,341	14,310,717
1983	10,731,520	3,307,746	14,620,648
1984	10,780,667	3,046,889	14,405,972
1985	11,118,071	3,095,243	14,819,781

TOTAL ROAD MOTOR VEHICLE REGISTRATIONS INCLUDES BUSES,
MOTORCYCLES, MOPEDS, OTHERS (FIRETRUCKS, AMBULANCES, ETC.)
AS WELL AS TRUCKS, TRUCK TRACTORS AND PASSENGER CARS.

SOURCE: STATISTICS CANADA CATALOGUE 53-219

FIG. 5.2
1985 ROAD MOTOR VEHICLE REGISTRATION



SOURCE: STATISTICS CANADA CATALOGUE 53-219
 *INCLUDES FOR-HIRE CARS AND TAXIS.
 **AMBULANCES, FIRE TRUCKS, ETC.

TABLE 5.2

AUTOMOBILE STOCK BY PROVINCE

YEAR	CANADA	ATLANTA	PEI	NS	NB	QUE	ONT	MAN	SASK	ALTA	BC
1960	4,104,415	45,586	19,170	140,151	106,167	843,731	1,732,933	213,263	313,147	339,512	446,050
1961	4,323,682	48,200	20,440	156,663	112,704	909,322	1,794,444	226,376	228,269	356,721	467,370
1962	4,531,304	54,373	22,092	153,595	118,483	908,457	1,840,119	236,737	242,271	376,095	495,308
1963	4,788,896	58,912	23,328	160,482	123,035	1,068,291	1,926,878	247,105	250,183	393,422	531,116
1964	5,037,861	65,384	24,323	169,490	130,443	1,115,023	2,028,528	258,076	259,919	408,382	571,307
1965	5,279,373	69,900	25,796	170,389	137,137	1,145,785	2,139,696	260,339	267,771	424,217	623,742
1966	5,499,527	71,839	26,689	174,380	144,900	1,186,876	2,235,489	270,175	272,749	445,195	664,791
1967	5,865,738	75,138	27,634	187,765	149,723	1,370,514	2,312,344	280,480	282,374	470,143	702,003
1968	6,159,573	81,459	27,752	207,477	157,444	1,448,120	2,424,916	288,750	287,611	486,401	740,979
1969	6,433,283	85,667	29,229	232,940	156,102	1,534,682	2,501,718	299,695	284,356	506,835	790,493
1970	6,602,176	89,568	30,376	201,954	155,307	1,602,129	2,576,041	306,559	284,251	530,420	811,590
1971	6,967,247	104,500	32,251	229,034	171,567	1,690,802	2,713,054	318,821	277,690	557,913	856,086
1972	7,407,275	113,300	34,231	229,034	185,183	1,871,802	2,848,907	326,848	292,487	588,399	906,268
1973	7,866,084	115,444	37,014	242,538	198,671	2,009,868	3,002,091	335,175	304,885	627,931	961,497
1974	8,472,224	121,859	39,430	253,521	208,229	2,106,808	3,255,498	378,194	328,940	687,345	999,957
1975	8,870,307	127,300	40,661	262,187	218,919	2,188,895	3,404,000	395,098	348,855	715,713	1,156,964
1976	9,016,258	129,630	42,015	270,063	226,070	2,350,330	3,341,865	413,072	370,144	789,385	1,080,461
1977	9,554,290	127,205	44,106	275,011	233,164	2,522,648	3,490,477	431,419	425,409	864,415	1,126,293
1978	9,744,994	132,449	46,413	284,559	243,301	2,449,668	3,597,371	445,546	395,089	960,284	1,176,883
1979	9,905,146	140,394	47,632	316,257	250,388	2,568,665	3,390,837	452,904	366,164	1,040,277	1,098,821
1980	10,255,511	146,821	47,608	364,416	252,915	3,187,333	3,708,694	458,457	393,205	1,141,901	1,181,147
1981	10,199,388	141,607	48,564	350,497	251,511	2,378,851	3,831,058	460,501	391,743	1,216,340	1,128,806
1982	10,530,355	129,387	48,177	365,883	249,819	2,376,745	3,842,743	464,916	375,165	1,259,791	1,419,729
1983	10,731,520	133,585	50,521	365,929	259,866	2,449,182	3,900,384	478,194	381,934	1,290,176	1,421,749
1984	10,780,667	154,480	52,538	347,303	268,686	2,466,201	3,904,706	492,872	378,425	1,274,482	1,427,198
1985	11,118,071	168,416	54,533	366,172	278,106	2,483,413	4,093,730	512,733	387,260	1,289,040	1,468,413

SOURCE: STATISTICS CANADA ROAD MOTOR VEHICLE REGISTRATIONS 53-219.

TABLE 5.3

TOTAL NEW MOTOR VEHICLE SALES

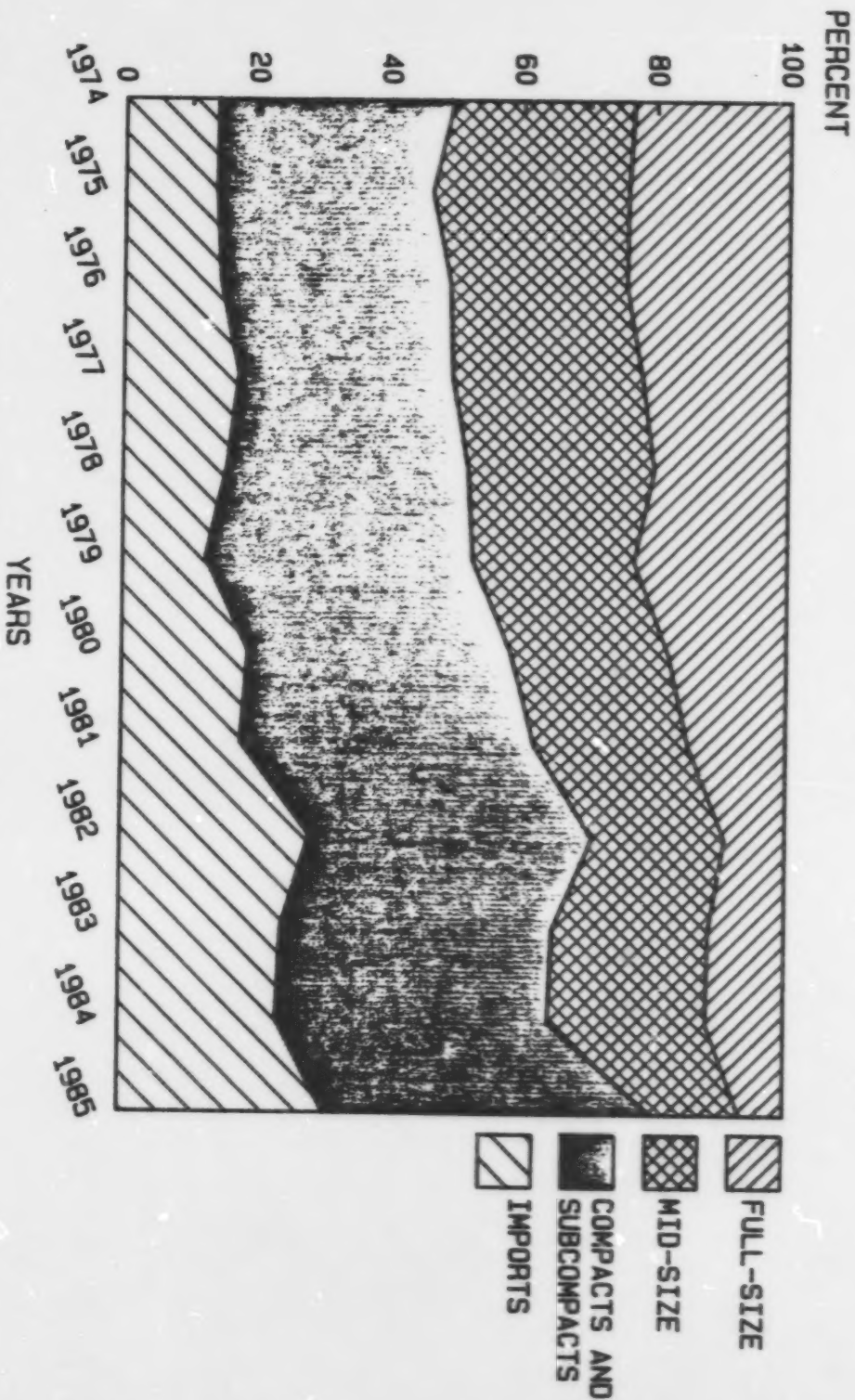
	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973
TOTAL	437,319	502,565	557,787	616,759	708,716	694,820	679,433	741,915	760,803	640,360	780,762	858,959	970,828
CAN-DOM	336,122	427,127	506,311	550,823	633,641	626,906	605,049	637,393	638,270	497,185	592,319	653,933	782,914
NFLD	3,941	4,770	5,949	6,326	8,078	9,732	10,325	9,579	8,934	8,360	11,363	13,940	16,273
PEI	1,543	1,031	2,386	2,368	2,709	2,653	2,421	2,514	2,284	1,993	2,322	2,609	3,205
NS	10,773	13,202	14,975	16,061	18,909	19,517	19,210	20,863	18,846	14,937	17,598	19,168	25,297
NB	9,253	11,341	12,247	13,665	16,170	16,878	14,081	15,687	14,755	11,811	16,081	18,051	21,087
QUE	82,679	111,213	131,905	163,687	164,040	161,827	158,706	170,139	169,374	138,422	162,019	182,437	223,505
ONT	144,295	177,575	210,532	226,670	268,670	253,531	246,044	268,910	276,285	213,652	257,383	274,941	323,489
MAN	18,971	20,631	24,249	26,187	25,927	29,452	30,532	27,569	26,813	21,657	24,383	27,758	33,203
SASK	17,249	19,405	25,223	28,132	30,093	30,158	29,039	26,836	22,043	15,907	20,230	23,627	28,441
ALTA	26,496	34,874	38,033	41,270	45,479	47,574	47,824	49,450	50,799	36,751	40,779	45,000	51,664
BC	20,922	32,285	40,812	45,457	53,566	50,664	46,847	43,846	48,137	33,695	39,361	46,402	56,670

	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
TOTAL	942,797	989,280	946,488	991,398	988,890	1,003,008	932,060	904,195	713,481	843,318	971,210	1,137,216	1,091,117
CAN-DOM	796,840	835,679	793,201	797,752	815,994	863,554	740,767	646,942	489,435	625,088	724,932	794,965	761,867
NFLD	15,260	13,880	12,618	13,059	14,585	14,987	14,156	11,026	9,878	12,108	12,551	13,057	13,196
PEI	3,368	3,194	3,418	3,299	3,977	4,199	3,228	2,821	2,092	3,282	3,793	3,416	3,266
NS	27,420	26,308	26,148	25,008	28,920	30,137	26,477	22,429	18,705	24,946	29,305	29,166	26,978
NB	22,104	21,931	21,918	20,817	22,181	23,620	20,104	16,176	12,843	18,419	20,992	21,253	19,866
QUE	227,416	233,021	237,696	224,530	222,937	258,266	206,232	161,404	113,175	167,104	210,788	217,111	205,676
ONT	311,507	354,581	299,267	321,391	331,391	329,488	272,772	254,902	204,727	264,776	305,339	349,209	329,053
MAN	35,270	33,246	35,125	33,199	33,218	30,025	27,975	24,751	20,853	22,977	24,587	26,939	27,081
SASK	33,625	31,145	31,202	27,244	27,329	26,560	25,484	24,009	20,272	21,214	21,184	22,620	22,605
ALTA	59,891	61,523	70,005	70,519	70,451	76,607	74,609	67,928	49,295	50,022	52,699	64,647	61,653
BC	60,979	56,850	55,804	58,686	61,005	69,665	69,724	61,496	37,595	40,240	43,694	47,527	53,073

SOURCE: STATISTICS CANADA CANSIM DATA BASE-CANADIAN AND U.S. MANUFACTURED.
02373, 02369 AND 07519 TO 07520.

FIG. 5.3

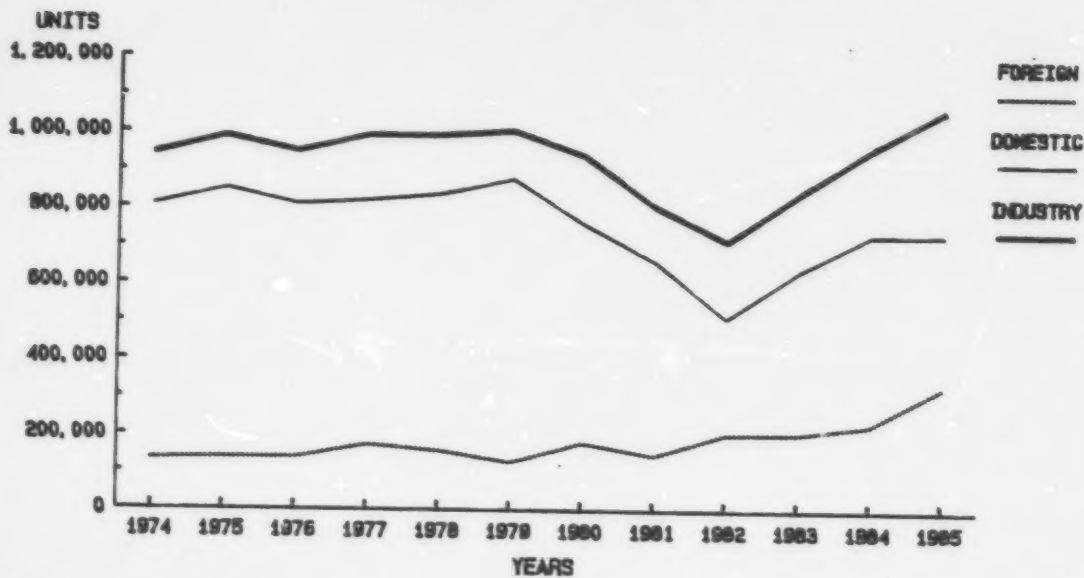
CANADIAN NEW CAR SALES BY CLASS 1974-1985



Source: Market segmentation derived from MVMA vehicle sales data.
Imports: Market segmentation derived from Automobile Importers Association sales data.
Full-size, mid-size and compacts are domestic only.

FIG. 5.4

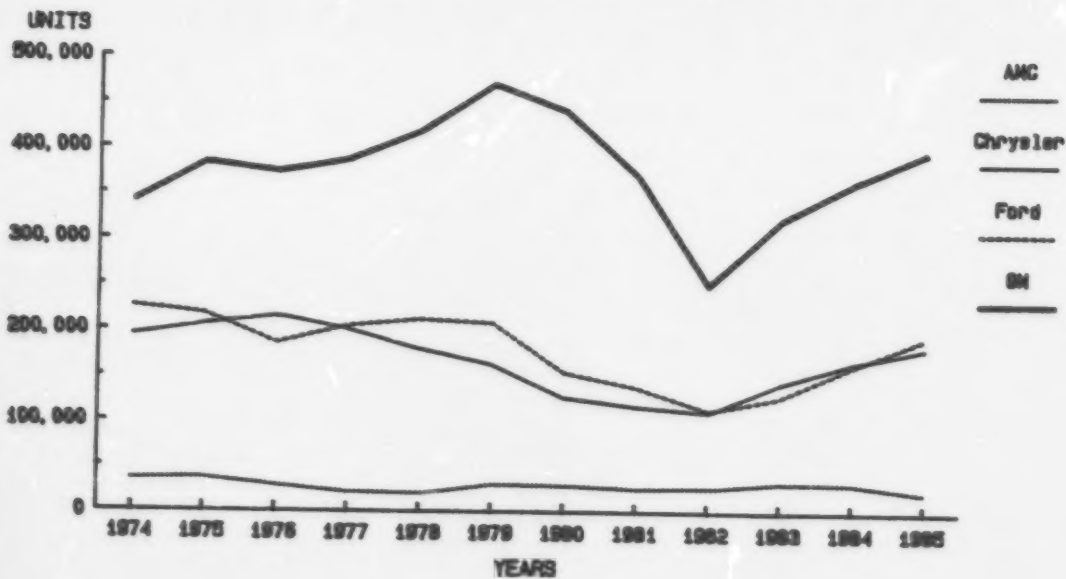
CANADIAN NEW PASSENGER CAR SALES 1974-1985 DOMESTIC AND FOREIGN



SOURCE: MOTOR VEHICLE MANUFACTURERS
Domestic: GM, Ford, Chrysler, AMC, Volvo
Foreign: Automobile Imports of Canada

FIG. 5.5

CANADIAN NEW PASSENGER CAR SALES BY MANUFACTURERS, 1974-1985



SOURCE: MOTOR VEHICLE MANUFACTURERS

TABLE 5.4

MOTOR VEHICLE MANUFACTURERS
NEW PASSENGER CAR SALES

		1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
SUBCOMPACTS	AMC	13,063	10,936	8,089	5,913	3,996	16,575	15,852	16,099	17,194	30,815	30,892	21,240
	CHRYSLER	0	0	0	83	25,570	41,438	29,477	25,985	23,304	39,289	47,510	49,020
	FORD	32,864	23,588	17,764	21,085	22,013	20,951	18,945	38,263	48,625	40,999	34,155	36,050
	GM	46,467	28,979	24,837	18,707	29,407	69,279	72,497	65,268	51,711	41,437	50,791	114,564
	TOTAL	92,394	63,503	50,690	45,788	80,986	148,243	136,771	145,615	140,834	152,540	163,340	220,874
COMPACTS	AMC	12,445	20,214	16,613	12,909	15,178	13,837	13,461	9,726	9,703	2,796	0	0
	CHRYSLER	87,260	83,031	108,453	90,845	63,619	47,719	40,432	56,153	52,862	73,508	71,271	60,960
	FORD	72,346	66,424	59,673	70,536	93,912	96,082	62,916	45,718	27,115	37,032	63,490	77,380
	GM	56,998	78,900	85,494	93,682	100,834	91,897	109,163	89,330	64,293	68,246	85,070	165,781
	TOTAL	240,844	256,577	275,813	273,482	279,055	256,537	233,992	209,581	162,141	190,036	228,347	304,121
	SMALL	465,833	457,715	465,016	492,576	516,185	531,352	550,476	500,595	507,016	548,418	620,903	863,816
MID-SIZE	AMC	7,810	5,281	3,667	2,524	1,241	0	0	0	0	0	1,204	863
	CHRYSLER	62,450	80,821	57,686	67,512	71,390	47,828	41,183	27,884	26,323	14,800	26,838	27,660
	FORD	68,674	60,852	44,379	79,827	66,944	40,048	38,440	28,541	21,292	27,697	39,675	30,287
	GM	115,019	143,294	143,386	131,746	137,013	153,014	140,886	128,656	92,692	153,603	159,466	80,991
	TOTAL	253,953	290,248	249,118	281,609	276,588	240,890	220,509	185,081	140,307	196,100	227,183	139,801
FULL-SIZE	AMC	1,863	0	0	0	0	0	0	0	0	0	0	0
	CHRYSLER	44,617	42,184	49,304	41,844	18,030	25,033	14,743	6,067	7,640	15,108	20,206	8,590
	FORD	52,323	66,195	63,439	33,640	29,473	51,325	33,313	24,890	15,548	22,306	25,132	26,054
	GM	121,874	132,055	119,242	142,867	151,726	156,010	118,439	86,898	41,542	59,457	68,030	34,015
	TOTAL	220,677	240,434	231,985	218,351	199,229	232,368	166,495	117,855	64,730	96,871	113,368	68,659
	LARGE	474,630	530,682	481,103	499,960	475,817	473,258	387,004	302,936	205,037	292,971	340,551	208,460
	INDUSTRY	940,463	988,397	946,119	992,536	992,002	1,004,610	937,480	803,531	712,053	841,389	961,454	1,064,264
TOTAL	AMC	35,181	36,538	28,369	21,346	20,415	30,412	29,313	25,825	26,897	33,611	32,096	22,103
	CHRYSLER	194,327	206,062	215,443	200,284	178,609	162,018	125,835	116,089	110,129	142,705	165,825	181,992
	FORD	226,207	217,059	185,255	205,088	212,342	208,406	153,614	137,412	112,580	128,034	162,452	193,319
	GM	340,374	383,228	372,959	387,002	418,980	470,200	440,985	370,152	250,238	322,743	363,357	397,076
	VOLVO	11,795	8,008	5,580	5,510	5,512	7,002	8,020	8,654	8,168	8,454	8,516	8,012
	LIGHT TR	0	259,297	287,184	299,262	320,370	329,155	271,122	222,332	149,807	179,582	248,740	155,643
	FOREIGN	132,595	137,635	138,513	173,306	156,144	126,572	179,713	145,399	204,041	205,842	229,208	330,809
	DOMESTIC	807,868	850,762	807,606	819,230	835,858	878,038	757,767	658,132	508,012	635,547	732,246	733,455

SOURCE: Derived from MVMA sales data.

SMALL: SUBCOMPACT, COMPACT+VOLVO, AND IMPORTS (excludes Peugeot).

LARGE: INTERMEDIATE AND FULL SIZE

INDUSTRY: FOREIGN AND DOMESTIC (excludes Peugeot).

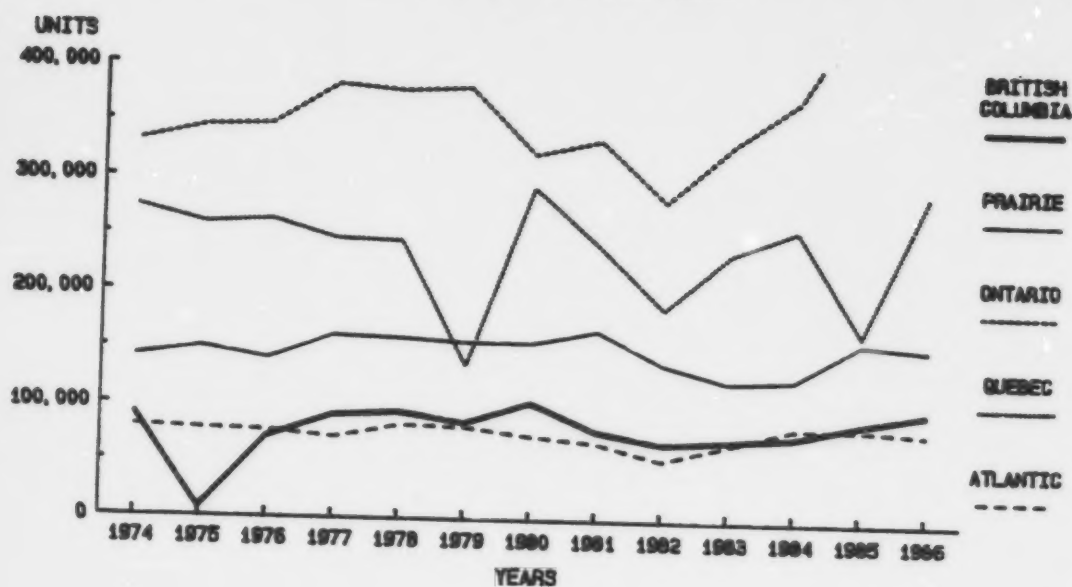
FOREIGN: AUTOMOBILE IMPORTERS OF CANADA

DOMESTIC: GM FORD CHRYSLER AMC VOLVO

TOTAL COMPACT INCLUDES VOLVO

FIG. 5.6

R. L. POLK NEW PASSENGER CAR REGISTRATIONS BY REGION, 1974-1986



SOURCE: R.L. POLK MONTHLY DATA SHEETS.
Missing data: BC-1975; Que-1979

TABLE 5.5

R.L. POLK AND CO. LTD.
NEW PASSENGER CAR REGISTRATIONS

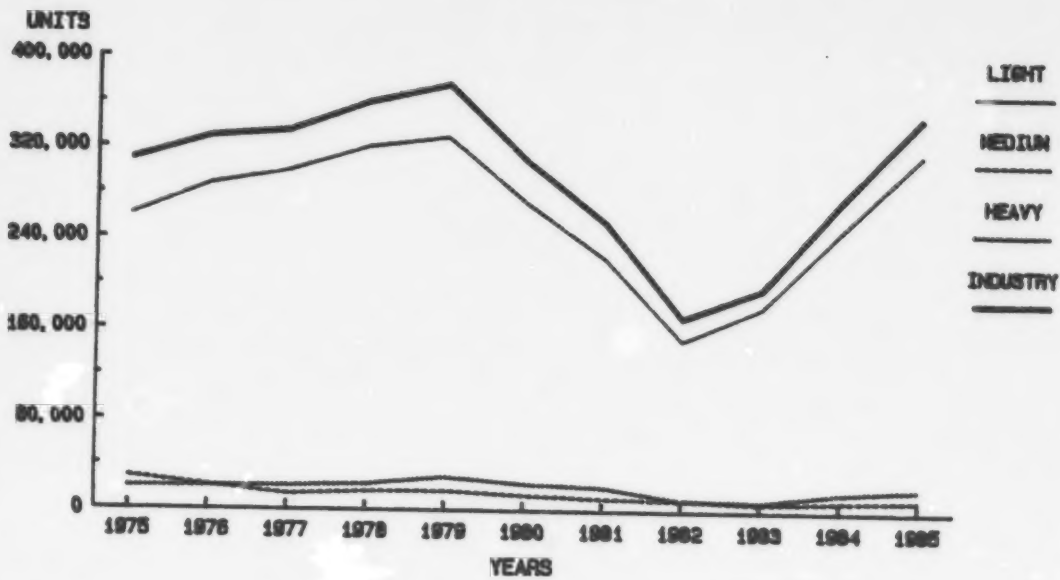
	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
BC	91,164	7,605	71,413	91,424	94,601	85,148	104,096	78,854	68,106	71,914	75,854	88,366	98,506
SASK	31,925	32,798	31,209	32,402	36,853	35,377	29,814	34,754	28,876	26,779	27,585	26,456	28,877
ALTA	69,752	76,970	68,561	89,169	83,134	87,241	93,686	100,387	80,450	66,533	66,373	97,575	87,732
MAN	40,601	40,736	40,558	40,159	39,193	33,421	32,650	32,452	28,737	29,251	31,787	34,903	37,366
ONT	332,219	345,311	347,508	362,658	377,448	390,746	321,965	334,902	280,908	331,830	372,002	461,686	441,162
QUE	273,153	258,812	262,524	245,972	244,371	135,065	293,262	242,025	186,149	236,031	257,931	165,338	291,495
NB	24,705	25,299	25,318	25,453	26,322	27,532	24,070	20,466	15,717	22,022	26,396	26,076	23,729
NS	30,793	31,457	32,403	28,211	36,532	31,902	32,711	25,711	24,096	29,861	35,767	36,766	35,424
NFLD	20,284	17,502	14,574	14,057	14,808	16,954	13,232	17,847	10,709	11,978	16,065	16,295	16,325
PEI	3,797	3,372	4,285	3,573	5,152	4,705	3,481	4,160	3,189	4,258	4,919	4,688	4,447
TOTAL	918,393	839,942	898,253	953,078	958,414	838,091	948,967	891,558	727,097	830,457	914,679	958,149	10,651,143

SOURCE: R.L. POLK AND CO. LTD.

Note: Quebec for 1986 includes delayed registrations.

FIG. 5.7

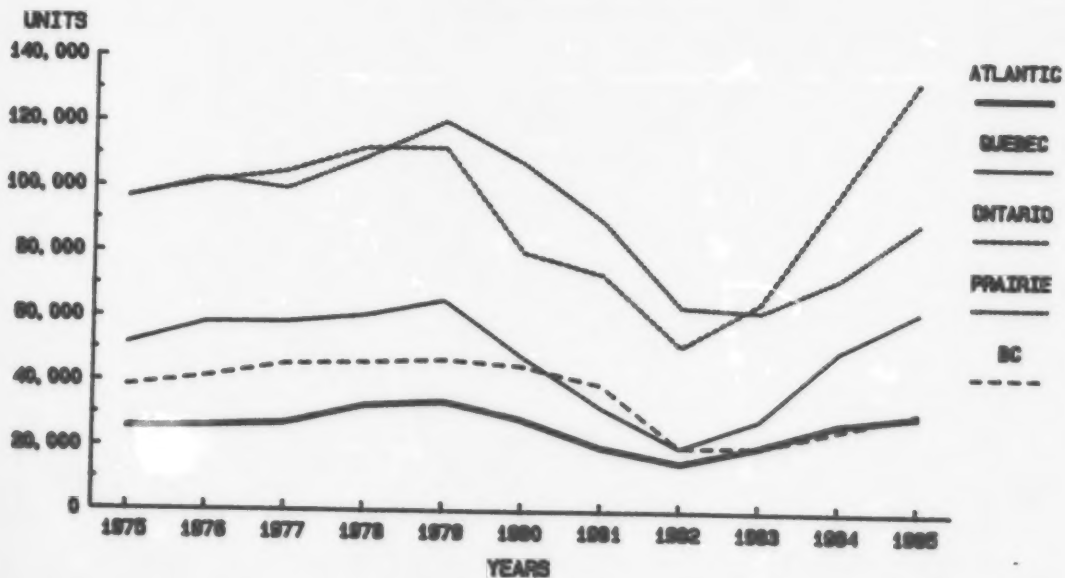
NEW TRUCK SALES BY SIZE, 1975-1985 (DOMESTIC ONLY)



SOURCE: MOTOR VEHICLE MANUFACTURERS.

FIG. 5.8

NEW TRUCK SALES BY REGION, 1975-1985 (DOMESTIC ONLY)



SOURCE: MOTOR VEHICLE MANUFACTURERS.

TABLE 5.6

MOTOR VEHICLE MANUFACTURER SALES
OF NEW TRUCKS BY SIZE BY PROVINCE

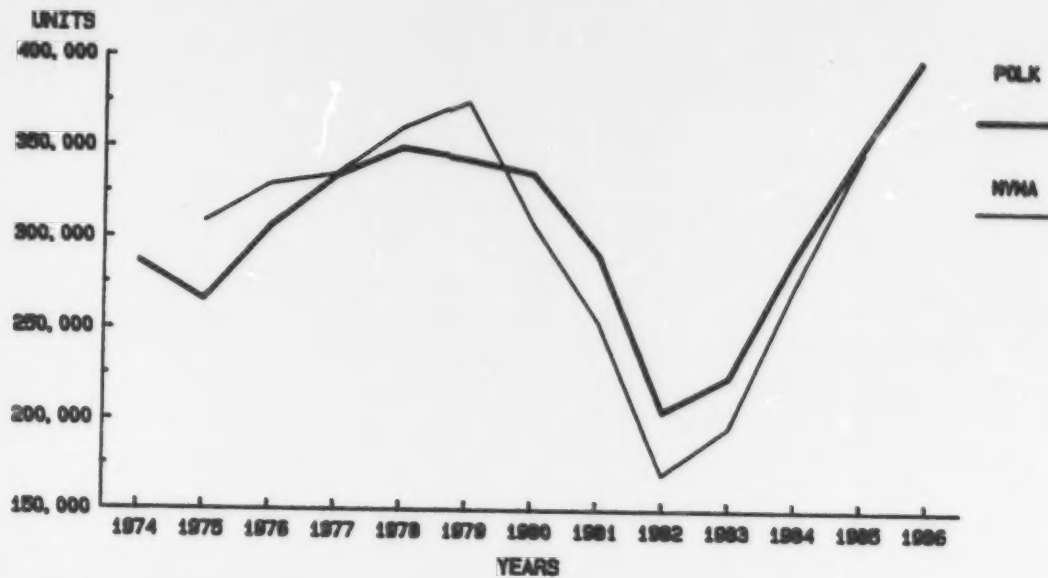
		1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
LIGHT	NFLD	5,338	5,497	6,150	7,769	8,499	7,394	4,890	3,762	4,795	24,399	6,215
	PEI	1,020	1,068	1,186	1,514	1,556	1,204	832	608	930	40,378	1,390
	NS	8,061	8,601	8,852	10,211	11,001	8,784	6,324	5,117	6,932	15,321	11,147
	NB	7,274	7,972	8,404	9,447	9,803	8,669	5,918	4,322	6,634	11,514	9,479
	QUE	41,120	48,396	50,291	52,074	55,452	40,420	26,235	16,099	25,205	87,196	54,971
	ONT	80,317	87,834	91,976	98,333	93,493	68,278	63,301	43,320	57,997	44,206	119,867
	MAN	14,163	15,537	15,094	16,605	16,239	12,952	10,014	7,936	8,933	8,785	14,498
	SASK	22,113	21,796	17,958	19,861	21,951	19,118	16,626	13,667	14,108	9,880	17,080
	ALTA	44,698	52,510	55,899	60,980	67,641	62,810	52,398	36,305	34,903	1,271	51,346
	BC	35,223	38,063	41,953	42,646	43,520	41,493	35,686	18,671	19,145	5,791	29,370
	CANADA	259,297	287,184	299,262	320,370	329,155	271,122	222,332	149,807	179,582	248,740	315,344
MEDIUM	NFLD	549	432	283	397	415	264	214	198	113	155	145
	PEI	143	117	69	82	60	55	39	14	22	37	32
	NS	756	548	413	554	417	347	269	229	142	210	257
	NB	798	580	384	385	385	334	263	186	242	336	292
	QUE	5,818	4,535	3,448	3,643	3,359	2,250	1,848	1,939	1,581	2,448	2,865
	ONT	8,570	5,971	4,340	5,195	4,982	4,106	3,187	3,383	2,637	3,836	4,261
	MAN	2,058	1,466	1,063	1,103	1,185	1,061	658	460	438	392	375
	SASK	3,967	2,817	1,474	1,674	1,772	1,318	1,219	940	784	656	630
	ALTA	4,663	3,513	2,788	3,268	3,279	2,666	2,385	1,610	990	1,093	1,268
	BC	1,563	1,243	917	1,118	1,108	1,081	1,026	745	365	513	588
	CANADA	28,885	21,232	13,934	16,618	16,962	13,482	10,999	9,704	7,314	9,676	10,713
HEAVY	NFLD	334	223	238	197	302	197	120	60	96	123	184
	PEI	83	85	61	41	75	88	59	46	40	42	46
	NS	532	456	378	410	513	482	449	260	237	395	448
	NB	633	530	649	768	961	589	564	362	276	595	773
	QUE	4,557	5,173	4,569	4,806	6,456	4,978	4,104	1,870	1,770	3,395	4,380
	ONT	7,875	7,602	8,366	8,505	10,967	7,608	6,779	4,433	4,208	8,310	9,042
	MAN	1,283	928	999	1,219	2,166	1,789	1,265	556	412	1,141	1,225
	SASK	976	1,012	840	855	1,084	1,053	925	422	389	483	659
	ALTA	2,308	2,583	3,104	3,393	4,947	4,482	4,254	1,470	983	1,506	2,355
	BC	1,449	1,971	2,505	2,188	2,139	2,210	2,319	707	640	924	1,540
	CANADA	20,080	20,663	21,457	23,185	29,610	23,476	20,838	10,186	9,050	16,914	20,713
TOTAL	NFLD	6,241	6,152	6,671	8,293	9,216	7,855	5,224	4,020	5,004	6,068	6,594
	PEI	1,246	1,270	1,316	1,639	1,691	1,347	930	668	992	1,350	1,499
	NS	9,349	9,605	9,643	12,175	11,931	9,613	7,042	5,606	7,311	10,485	11,910
	NB	8,705	9,082	9,437	10,600	11,149	9,592	6,745	4,870	7,152	9,716	10,555
	QUE	51,495	58,104	58,308	60,523	65,267	47,648	32,187	19,908	28,556	50,049	62,345
	ONT	96,762	101,407	104,682	112,033	112,142	79,992	73,267	51,136	64,842	99,342	134,204
	MAN	17,504	17,951	17,156	18,927	19,590	15,802	11,937	8,952	9,783	13,047	16,277
	SASK	27,056	25,625	20,272	22,390	24,807	21,489	18,770	15,029	15,281	16,460	18,445
	ALTA	51,669	58,606	61,791	67,641	75,867	69,958	59,037	39,385	36,876	42,977	55,027
	BC	38,235	41,277	45,377	45,952	46,767	44,784	39,031	20,123	20,150	25,836	31,509
	CANADA	308,262	329,079	334,653	360,173	375,727	308,080	254,170	169,697	195,946	275,330	348,365

EXCLUDES IMPORTS

SOURCE: MOTOR VEHICLE MANUFACTURERS

FIG. 5.9

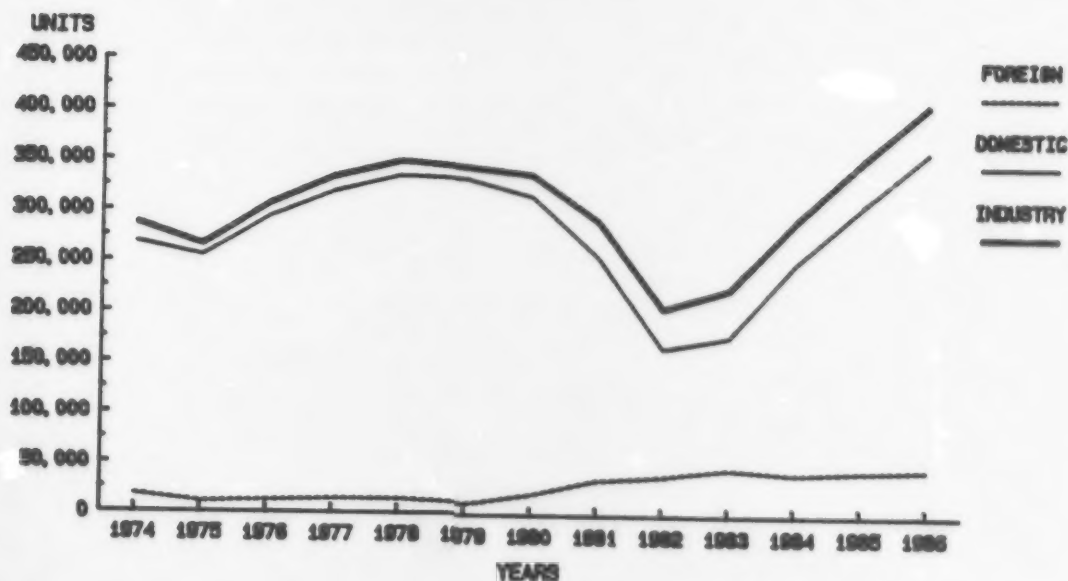
POLK AND NYMA NEW TRUCK REGISTRATIONS AND SALES 1974-1986



SOURCE: R.L. POLK & MOTOR VEHICLE MANUFACTURERS.
NYMA - Domestic Polk includes imports.
Missing Data: BC-1976; Que-1978; Ont-1984.

FIG. 5.10

R.L. POLK NEW TRUCK REGISTRATIONS 1974-1986



SOURCE: R.L. POLK MONTHLY DATA SHEETS.

TABLE 5.7

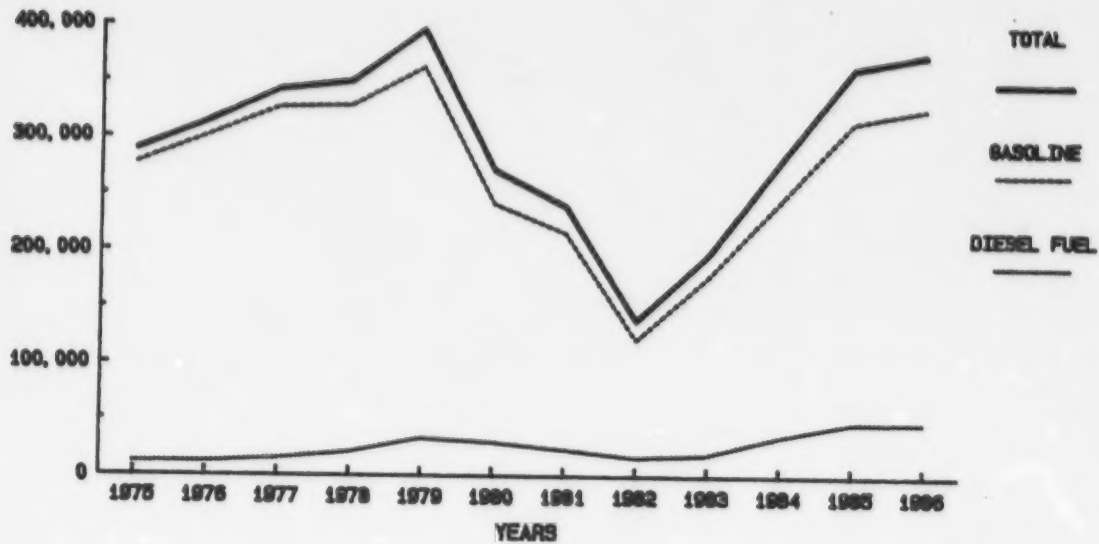
R.L. POLK & CO. LTD. NEW TRUCK REGISTRATIONS BY PROVINCE BY SIZE															
LIGHT		1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	
IMPORTS	ONT	3,596	3,064	2,462	2,802	2,736	2,402	4,207	8,422	8,866	11,240	10,789	14,557	13,509	
	QUE	2,020	1,662	1,475	1,552	1,322	783	2,576	5,677	8,628	13,507	11,468	7,308	12,484	
	ALTA	2,370	2,221	1,771	2,263	2,301	2,233	3,859	6,154	6,404	5,170	4,142	6,593	5,137	
	BC	6,448	530	3,963	4,784	4,401	3,325	6,923	9,198	7,871	8,859	8,064	8,829	8,744	
	MAN	636	587	570	604	575	503	761	1,085	1,445	1,735	1,681	2,029	2,025	
	SASK	847	896	817	921	1,086	900	1,024	1,935	2,074	1,630	1,463	1,348	1,283	
	NB	568	516	436	459	493	353	553	838	1,254	1,557	1,497	1,428	1,227	
	NS	852	755	570	592	750	455	716	1,062	1,887	2,144	1,919	1,921	1,632	
	NFLD	426	293	217	192	223	275	340	827	896	887	736	659	525	
	PEI	126	112	97	88	94	65	77	137	253	304	249	237	200	
	CANADA	17,889	10,636	12,378	14,257	13,981	11,294	21,036	35,335	39,578	47,033	42,008	44,909	46,768	
	DOMESTIC	ONT	66,758	69,996	77,847	88,664	89,979	88,136	65,601	68,772	40,348	52,852	78,042	115,510	126,361
		QUE	37,116	37,001	45,417	44,047	43,124	26,019	45,497	30,129	11,410	20,572	35,184	26,999	56,973
ALTA		35,728	45,385	39,666	56,287	55,391	62,842	61,354	64,641	41,770	32,683	35,965	55,902	48,435	
BC		32,992	2,628	32,903	39,401	42,004	39,059	42,648	32,167	18,302	18,204	23,445	26,912	32,833	
MAN		11,783	13,206	13,191	13,942	14,878	14,302	11,560	9,816	7,087	7,383	9,584	11,581	13,324	
SASK		17,571	20,133	20,055	17,208	22,681	26,414	20,684	21,612	15,876	14,911	17,675	16,461	16,526	
NB		6,399	6,974	8,042	8,449	9,411	10,235	8,526	6,337	3,739	6,002	8,917	8,721	9,473	
NS		6,616	7,826	8,738	7,629	11,197	9,885	8,842	6,212	4,441	6,238	9,830	9,990	11,207	
NFLD		5,879	5,937	5,684	5,762	6,721	8,984	6,205	7,198	2,987	3,667	6,163	5,976	6,747	
PEI		1,065	938	1,121	1,212	1,530	1,643	1,007	1,118	607	934	1,355	1,366	1,474	
CANADA		221,907	210,024	252,664	282,601	296,916	287,519	271,924	221,865	146,567	163,446	226,160	279,418	324,429	
MEDIUM		ONT	7,456	7,393	6,769	5,428	4,466	4,849	4,536	2,945	2,131	1,746	2,155	2,504	2,938
		QUE	5,438	5,527	4,954	3,673	2,619	1,355	2,221	1,509	287	359	395	511	1,346
	ALTA	3,505	5,123	3,425	3,814	3,375	4,308	3,146	1,753	806	293	360	586	803	
	BC	2,362	237	2,003	1,727	1,884	1,805	2,053	1,862	755	366	477	310	530	
	MAN	1,470	1,972	1,632	1,165	1,247	1,099	793	640	538	260	331	327	268	
	SASK	2,550	4,168	3,295	1,990	2,607	2,582	1,845	1,278	749	463	391	326	401	
	NB	907	752	651	541	484	494	342	183	145	128	162	130	173	
	NS	521	737	625	415	611	520	419	226	182	87	146	146	193	
	NFLD	741	855	521	286	283	459	241	291	78	44	86	87	134	
	PEI	213	181	185	115	150	124	84	54	32	34	35	38	34	
	CANADA	25,163	26,945	24,060	19,154	17,726	17,595	15,680	10,741	5,703	3,780	4,538	4,965	6,820	
	HEAVY	ONT	7,548	6,083	6,041	6,474	6,987	9,715	8,136	6,653	4,519	4,310	9,397	8,740	14,028
		QUE	5,278	3,960	3,889	2,912	3,428	2,759	5,423	3,751	1,398	1,445	3,560	3,637	5,606
ALTA		2,935	3,652	2,020	3,284	4,185	7,148	6,364	6,564	3,432	1,474	2,108	4,125	4,678	
BC		2,516	218	1,588	2,204	2,640	2,839	3,394	2,756	1,090	747	1,323	1,944	2,174	
MAN		606	805	626	688	696	958	875	610	321	210	635	953	1,032	
SASK		821	1,128	1,083	959	1,385	1,711	1,554	1,733	1,235	887	999	1,073	1,007	
NB		666	618	509	500	613	678	670	375	388	194	646	692	930	
NS		311	415	425	269	458	693	454	386	378	264	515	602	675	
NFLD		480	465	252	192	213	404	223	284	136	73	311	296	281	
PEI		64	66	71	57	66	108	94	76	49	54	73	134	122	
CANADA		21,225	17,410	16,504	17,539	20,671	27,013	27,187	23,188	12,646	9,658	19,567	22,196	28,845	
INDUSTRY		ONT	85,358	86,536	93,119	103,368	104,168	105,102	82,480	86,792	55,864	70,148	100,383	141,311	156,836
		QUE	49,852	48,150	55,735	52,184	50,493	30,916	55,717	41,066	21,723	35,883	50,607	38,455	76,409
	ALTA	44,538	56,381	46,882	65,648	65,252	76,531	74,723	79,112	52,412	39,620	42,575	67,206	59,053	
	BC	44,318	3,613	40,457	48,116	50,929	47,028	55,018	45,983	28,018	28,176	33,309	37,995	44,281	
	MAN	14,495	16,570	16,019	16,399	17,396	16,862	13,989	12,151	9,391	9,588	12,231	14,890	16,649	
	SASK	21,789	26,325	25,250	21,078	27,759	31,607	25,107	26,558	19,934	17,891	20,528	19,208	19,217	
	NB	8,540	8,860	9,638	9,949	11,001	11,760	10,091	7,733	5,526	7,881	11,222	10,971	11,803	
	NS	8,300	9,733	10,358	8,905	13,016	11,553	10,431	7,886	6,888	8,733	12,410	12,659	13,707	
	NFLD	7,526	7,550	6,674	6,432	7,440	10,122	7,009	8,600	4,097	4,671	7,296	7,018	7,687	
	PEI	1,468	1,297	1,474	1,472	1,840	1,940	1,262	1,385	941	1,326	1,712	1,775	1,830	
	CANADA	286,184	265,015	305,606	333,551	349,294	343,421	335,827	291,129	204,494	223,917	292,273	351,488	406,862	

SOURCE: R.L. Polk & Co. Ltd.

Note: 1986 Quebec data includes delayed registrations.

FIG. 5.11

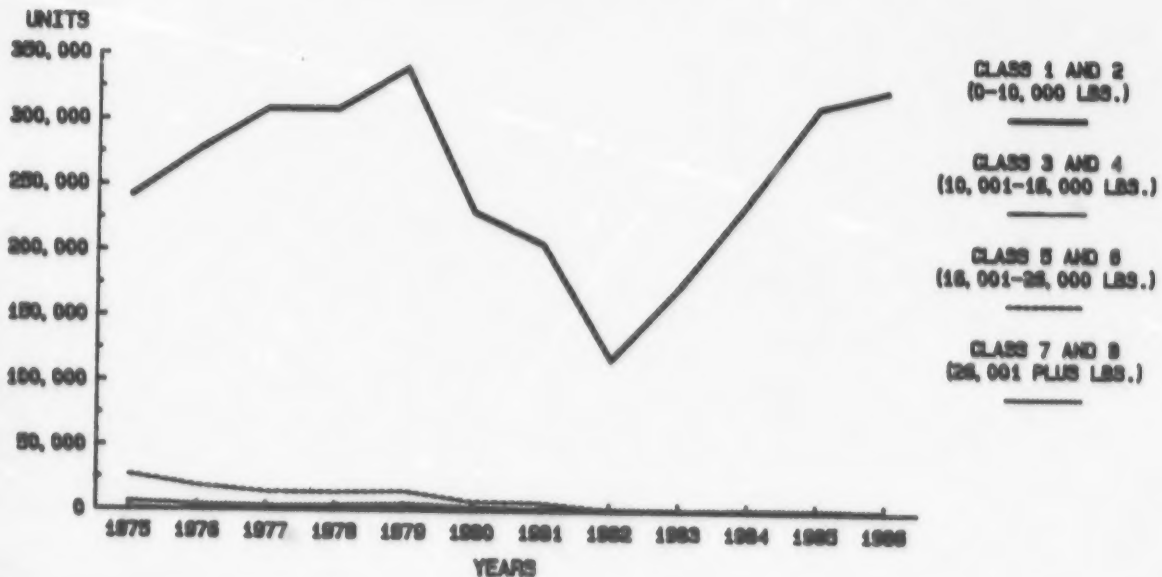
FACTORY SALES OF NEW TRUCKS BY ENGINE TYPE 1975-1986



SOURCE: NYMA DETROIT STATISTICS
(U.S. Exports to Canada plus Canada Domestic)

FIG. 5.12

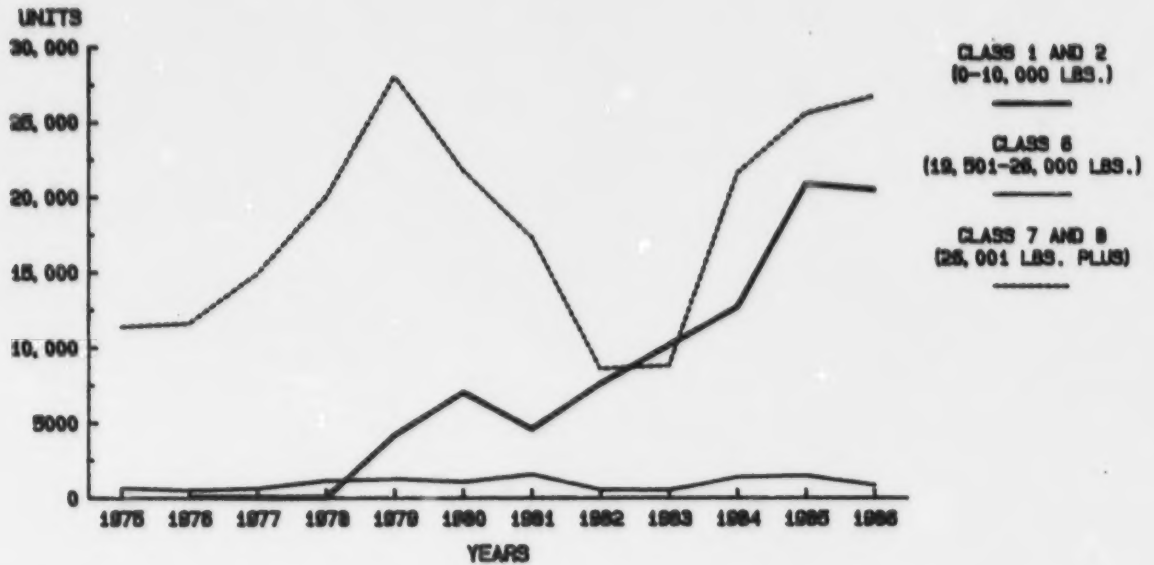
NEW TRUCK FACTORY SALES WITH GASOLINE ENGINES 1975-1986



SOURCE: NYMA DETROIT STATISTICS
(U.S. EXPORTS TO CANADA PLUS CANADA DOMESTIC)

FIG. 5.13

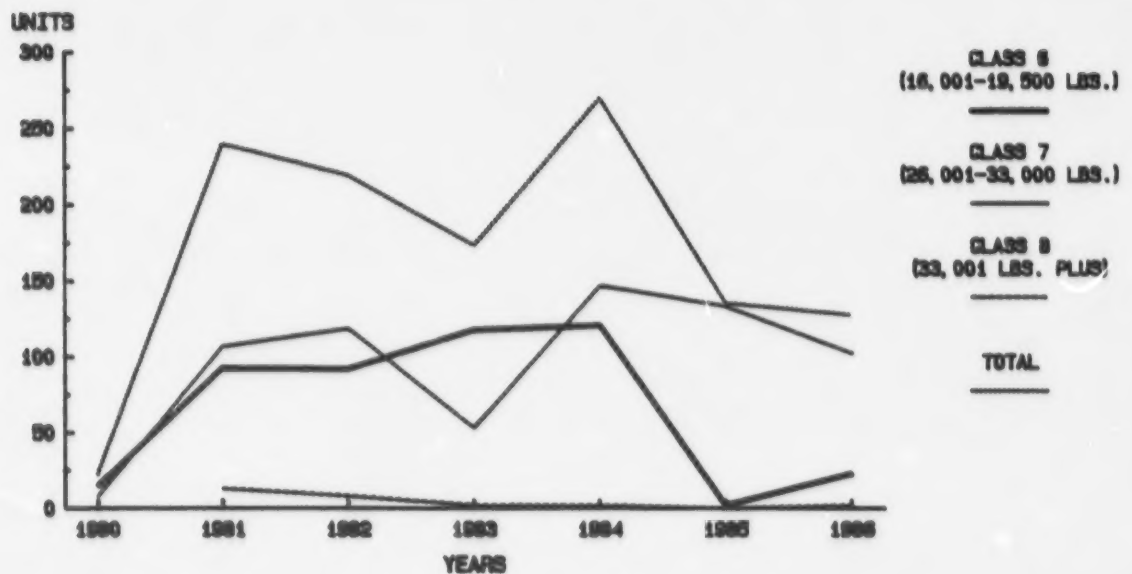
NEW TRUCK FACTORY SALES WITH DIESEL ENGINES 1975-1986



SOURCE: MYMA DETROIT STATISTICS
(US EXPORTS TO CANADA PLUS CANADA DOMESTIC)

FIG. 5.14

NEW TRUCK FACTORY SALES WITH LPG ENGINES 1980-1986



SOURCE: MYMA DETROIT STATISTICS
(US EXPORTS TO CANADA PLUS CANADA DOMESTIC)

TABLE 5.8

FACTORY SALES OF NEW TRUCKS BY ENGINE TYPE 1975-1986
(DOMESTIC ONLY)

ENGINE	CLASS	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
TOTAL	1	133,880	119,787	133,590	128,006	133,137	97,743	83,551	65,228	102,029	146,676	203,212	227,245
TOTAL	2	106,855	157,077	174,765	179,584	210,746	138,741	126,306	59,233	82,089	105,850	128,530	117,182
TOTAL	3	422	696	312	2,067	1,711	612	0	0	0	1,630	66	0
TOTAL	4	887	230	72	31	38	0	0	0	0	0	0	0
TOTAL	5	3,190	2,540	1,098	765	1,217	489	631	122	102	203	203	175
TOTAL	6	24,778	16,769	13,632	14,583	14,937	7,877	7,909	1,983	1,625	2,361	2,219	1,328
TOTAL	7	4,326	3,531	3,612	5,095	5,764	7,420	5,844	4,927	4,522	7,265	8,520	8,450
TOTAL	8	13,673	12,498	15,035	19,010	27,824	17,623	14,033	5,885	6,267	16,741	19,509	20,262
TOTAL	TOTAL	288,011	313,128	342,116	349,141	395,374	270,505	238,364	137,378	196,634	280,726	362,259	374,642
REGULAR	1	133,880	119,787	133,585	128,006	128,968	90,783	79,373	63,242	100,644	144,872	199,407	224,278
REGULAR	2	106,855	156,997	174,742	179,545	210,711	138,658	126,003	53,596	73,325	94,978	111,488	99,713
REGULAR	3	422	696	312	2,067	1,711	612	0	0	0	1,630	66	0
REGULAR	4	887	230	72	31	38	0	0	0	0	0	0	0
REGULAR	5	3,190	2,540	1,098	765	1,210	489	604	122	102	203	203	175
REGULAR	6	24,150	16,269	12,972	13,416	13,655	6,790	6,230	1,352	979	824	712	457
REGULAR	7	2,517	2,272	2,215	2,447	2,646	2,380	1,719	1,977	1,799	2,151	2,273	1,793
REGULAR	8	4,091	2,144	1,511	1,640	2,904	937	761	164	154	158	93	122
REGULAR	TOTAL	275,992	300,935	326,507	327,917	361,863	240,649	214,690	120,453	177,003	244,816	314,242	326,538
DIESEL	1	0	0	5	0	4,169	6,960	4,178	1,986	1,385	1,804	3,805	2,967
DIESEL	2	0	80	23	39	35	83	393	5,637	8,764	10,872	17,042	17,469
DIESEL	3	0	0	0	0	0	0	0	0	0	0	0	0
DIESEL	4	0	0	0	0	0	0	0	0	0	0	0	0
DIESEL	5	0	0	0	0	7	0	0	0	0	0	0	0
DIESEL	6	628	500	660	1,167	1,282	1,072	1,586	539	528	1,416	1,505	848
DIESEL	7	1,809	1,259	1,397	2,648	3,118	5,032	4,018	2,831	2,670	4,967	6,114	6,555
DIESEL	8	9,582	10,354	13,524	17,370	24,920	16,686	13,259	5,713	6,111	16,581	19,416	20,138
DIESEL	TOTAL	12,019	12,193	15,609	21,224	33,531	29,833	23,434	16,706	19,458	35,640	47,882	47,977
LPG	1	0	0	0	0	0	0	0	0	0	0	0	0
LPG	2	0	0	0	0	0	0	0	0	0	0	0	0
LPG	3	0	0	0	0	0	0	0	0	0	0	0	0
LPG	4	0	0	0	0	0	0	0	0	0	0	0	0
LPG	5	0	0	0	0	0	0	27	0	0	0	0	0
LPG	6	0	0	0	0	0	15	93	92	118	121	2	23
LPG	7	0	0	0	0	0	8	107	119	53	147	133	102
LPG	8	0	0	0	0	0	0	13	8	2	2	0	2
LPG	TOTAL	0	0	0	0	0	23	240	219	173	270	135	127

SOURCE: MVMA DETROIT STATISTICS

US EXPORTS TO CANADA AND CANADA DOMESTIC

REGULAR = TOTAL - DIESEL - LPG

CLASS 1 - 0 - 6000 LBS.

CLASS 2 - 6001 - 10000 LBS.

CLASS 3 - 10001 - 14000 LBS.

CLASS 4 - 14001 - 16000 LBS.

CLASS 5 - 16001 - 19500 LBS.

CLASS 6 - 19501 - 26000 LBS.

CLASS 7 - 26001 - 33000 LBS.

CLASS 8 - 33001+ LBS.

TABLE 5.9

RATIO OF POPULATION TO TOTAL AUTOMOBILE STOCK

	CANADA	NFLD	PEI	NS	NB	QUE	ONT	MAN	SASK	ALTA	BC
1960	4.33	9.83	5.37	5.19	5.55	6.09	3.53	4.25	4.29	3.80	3.59
1961	4.22	9.50	5.12	4.70	5.30	5.78	3.48	4.07	4.05	3.73	3.49
1962	4.10	8.61	4.84	4.86	5.11	5.44	3.45	3.95	3.84	3.64	3.35
1963	3.95	8.08	4.63	4.68	4.95	5.13	3.36	3.84	3.73	3.57	3.20
1964	3.83	7.39	4.48	4.45	4.68	5.01	3.27	3.72	3.62	3.50	3.05
1965	3.72	6.98	4.23	4.24	4.48	4.96	3.17	3.71	3.55	3.42	2.88
1966	3.64	6.87	4.07	4.34	4.26	4.87	3.11	3.56	3.50	3.29	2.82
1967	3.47	6.64	3.94	4.05	4.14	4.28	3.08	3.43	3.39	3.17	2.77
1968	3.36	6.21	3.96	3.70	3.97	4.09	2.99	3.36	3.34	3.13	2.70
1969	3.26	6.00	3.80	3.33	4.02	3.90	2.95	3.27	3.37	3.06	2.61
1970	3.23	5.77	3.62	3.87	3.94	3.75	2.93	3.21	3.31	3.01	2.62
1971	3.10	5.00	3.46	3.37	3.70	3.57	2.84	3.10	3.34	2.92	2.55
1972	2.95	4.70	3.30	3.47	3.47	3.23	2.75	3.03	3.13	2.81	2.48
1973	2.81	4.68	3.10	3.32	3.28	3.03	2.64	2.81	2.98	2.68	2.41
1974	2.65	4.45	2.96	3.21	3.18	2.81	2.49	2.67	2.76	2.49	2.40
1975	2.57	4.32	2.92	3.14	3.08	2.83	2.42	2.58	2.63	2.47	2.12
1976	2.55	4.30	2.81	3.07	3.00	2.65	2.47	2.47	2.49	2.33	2.30
1977	2.43	4.43	2.73	3.04	2.92	2.49	2.39	2.39	2.20	2.19	2.21
1978	2.41	4.29	2.63	2.94	2.86	2.56	2.35	2.32	2.40	2.04	2.15
1979	2.40	4.08	2.58	2.69	2.81	2.47	2.55	2.31	2.60	1.94	2.36
1980	2.36	3.93	2.60	2.35	2.80	2.01	2.36	2.30	2.44	1.81	2.15
1981	2.41	4.10	2.57	2.45	2.84	2.72	2.33	2.31	2.45	1.74	2.39
1982	2.37	4.51	2.59	2.37	2.87	2.75	2.36	2.30	2.56	1.71	1.94
1983	2.35	4.38	2.48	2.37	2.77	2.70	2.37	2.25	2.52	1.72	2.00
1984	2.38	3.81	2.39	2.50	2.69	2.70	2.40	2.19	2.86	1.76	2.02
1985	2.28	3.45	2.34	2.40	2.59	2.65	2.21	2.09	2.63	1.83	1.96

predicted population used for 1983-1985

TABLE 5.10

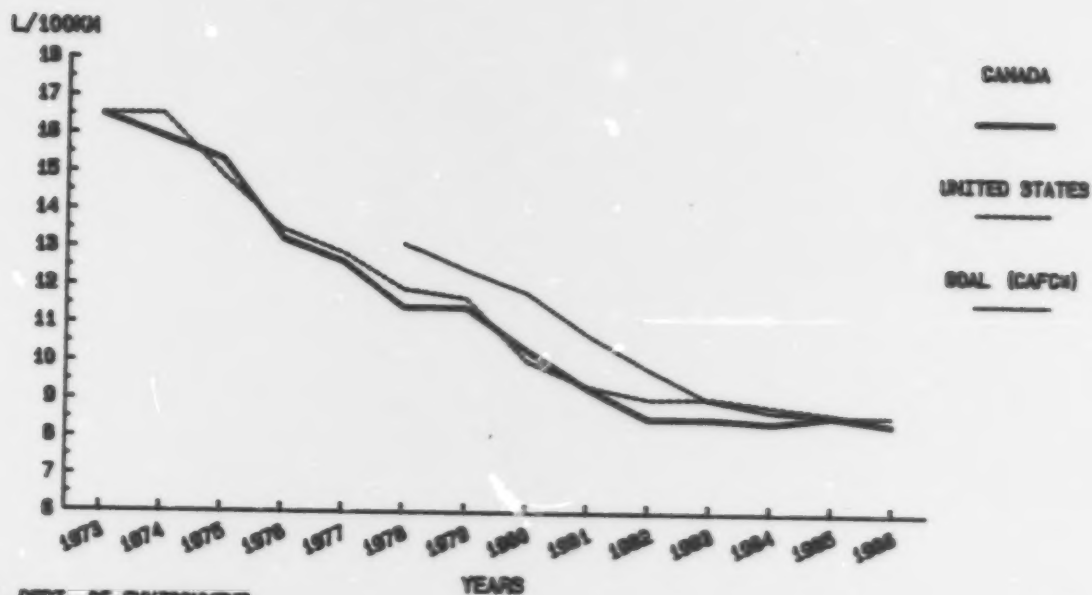
MOTOR VEHICLE REGISTRATIONS
TRUCKS AND TRUCK TRACTORS
('000)

YEAR	NFLD	PEI	NS	NB	QUE	ONT	MAN	SASK	ALTA	BC	YUK	NWT	CANADA
1960	16	7	37	25	198	314	68	120	140	110	3	1,038	
1961	17	7	38	26	205	317	69	120	145	112	4	1,060	
1962	16	7	41	25	212	323	71	129	151	116	3	1,094	
1963	16	7	39	25	221	327	73	131	157	122	4	1,122	
1964	18	7	41	26	228	335	76	135	163	130	4	1,163	
1965	18	8	40	27	232	344	75	144	169	144	4	1,205	
1966	19	8	43	24	227	361	78	151	178	153	5	1,247	
1967	19	8	43	26	214	371	82	157	189	163	5	1,277	
1968	20	8	53	25	231	385	84	161	198	178	8	1,351	
1969	19	8	60	28	234	400	87	174	206	198	8	1,422	
1970	21	9	49	29	236	413	88	166	214	208	7	1,440	
1971	23	9	55	31	240	430	92	172	227	228	8	1,515	
1972	26	10	53	38	260	462	95	186	246	255	9	1,640	
1973	28	10	61	43	277	505	107	200	274	285	10	1,800	
1974	32	12	65	50	312	550	119	219	312	297	11	1,979	
1975	34	13	73	54	278	599	131	242	322	371	12	2,129	
1976	40	14	80	60	301	651	144	257	343	362	14	2,266	
1977	43	15	91	68	328	747	157	207	371	399	16	2,442	
1978	45	17	109	77	372	783	166	307	406	421	15	2,718	
1979	53	19	123	85	374	834	176	299	438	434	19	2,854	
1980	61	19	145	90	396	813	180	273	457	449	20	2,903	
1981	62	17	143	91	321	1,090	184	283	470	456	21	3,138	
1982	56	17	148	100	295	1,068	187	295	460	592	22	3,240	
1983	59	18	156	106	305	1,120	191	295	439	595	25	3,308	
1984	68	18	140	111	301	858	195	308	403	621	25	3,047	
1985	72	19	142	114	301	904	208	297	386	627	25	3,095	

Source: Statistics Canada Catalogue 53-219.

FIG. 5.15

NEW CAR INDUSTRY AVERAGE FUEL CONSUMPTION



SOURCE: U.S. DEPT. OF ENVIRONMENT
CANADA DEPT. OF TRANSPORT
CAFCM: COMPANY AVERAGE FUEL CONSUMPTION

TABLE 5.11

NEW CAR INDUSTRY AVERAGE FUEL CONSUMPTION
(TEST RESULTS)
(L/100KM)

YEAR	CANADA	UNITED STATES	GOAL (CAFC)
1973	16.5	16.52	
1974	15.9	16.52	
1975	15.3	14.87	
1976	13.2	13.45	
1977	12.6	12.84	
1978	11.4	11.88	13.1
1979	11.4	11.65	12.4
1980	10.3	10.01	11.8
1981	9.3	9.34	10.7
1982	8.5	9.01	9.8
1983	8.5	9.05	9
1984	8.4	8.84	8.7
1985	8.6	8.65	8.6
1986	8.37	8.40	8.6

SOURCE: U.S. DEPARTMENT OF ENVIRONMENT
CANADA DEPARTMENT OF TRANSPORT

Catalogue 53-219 - Road Motor Vehicles - Registrations

This publication presents statistics of road motor vehicle registrations, drivers' licences and dealers' permits, as obtained from the provincial and territorial governments, for the 1982 licence year.

For all provinces and territories the registration figures represent the total number of vehicles which held a registration in the reporting jurisdiction for all or any part of the licence year. However, there is some slight duplication when vehicles are registered in more than one province or territory during the same licence year. Although the questionnaire asked for separate reporting of transfers from other provinces or territories, only Nova Scotia and British Columbia were able to supply this figure, therefore, no adjustment has been made. An analysis of these reports indicates that less than 1.7% of registrations of road motor vehicles represent transfers from other provinces or territories.

Since 1980, information from the province of Quebec concerning registrations for 1982 is based on a count of the number of vehicles in circulation. In previous years, data shown in tabulations for Quebec were based on the number of registration transactions. However, because Quebec registrations change each time a vehicle is sold (unlike in the other 9 provinces where the licence plate stays with the vehicles), the transactions count tended to overstate the number of vehicles on the road in Quebec.

Quebec figures for passenger automobiles exclude vehicles licensed for use on private roads as well as off-road motorcycles and all terrain vehicles. In 1979 these categories of vehicles were included with road motor vehicles but since 1980 they were shown as off-road vehicles.

The actual end of the registration year occurs on February 28 in Manitoba and Ontario but the registration year does not end until March 31 in Newfoundland, Prince Edward Island, Nova Scotia, New Brunswick, Quebec, Alberta, Yukon and Northwest Territories. The registration year end date was reported as "Staggered" for Saskatchewan and "Cyclical" for British Columbia. The count provided by Saskatchewan was based on the January 1, 1982 to December 31, 1982 period rather than April 1 to March 31 as in previous years.

Passenger Automobiles:

Passenger automobiles in Newfoundland and New Brunswick includes camper trucks; in Prince Edward Island includes ambulances and hearses. Quebec includes passenger or any other vehicles used for transporting school children, operated under a contract with a school board and available for personal use in passenger automobiles; as well as vehicles used for driving instruction by a driving school. Quebec also includes vehicles weighing less than 5,000 pounds, possessed and used solely within a locality

not connected to the general road network, excluding public vehicles, trailers and vehicles whose owner holds a permit from the Quebec Transport Commission. Quebec includes vehicles belonging to an automobile dealership or related enterprise in passenger automobiles. Manitoba includes ambulances, hearses and school buses. Alberta includes "Drive-Yourself" trucks and vans and trucks licensed with passenger plates. British Columbia excludes taxicabs and some station wagons which are licensed as motor trucks.

Trucks and Truck Tractors:

Ambulances, hearses and buses are included in Newfoundland's trucks and truck tractors, but excludes camper trucks. New Brunswick also excludes camper trucks. Quebec includes vehicles requiring a permit from the Quebec Transport Commission and includes temporarily registered vehicles and equipment. Ontario includes ambulances, hearses, fire trucks, and road construction and maintenance equipment. Manitoba includes fire trucks and includes vans or jeeps which have no provision for passenger seating to the rear of the driver. Alberta includes ambulances, hearses and fire trucks but excludes "Drive Yourself" trucks and vans and trucks licenses with passenger plates. British Columbia includes taxicabs, buses, ambulances, hearses and fire trucks but camper trucks are licensed as passenger vehicles and counted as trucks. Yukon includes vans, four-wheel-drive vehicles, jeeps, buses and other public service vehicles.

DATA DICTIONARY

MOTOR VEHICLE REGISTRATIONS/SALES

1. Data Element: ANNUAL VEHICLE STOCK

Item: Table 5.1

Source: Statistics Canada Catalogue 53-219, 1970-86
Road Motor Vehicles - Registrations
Table 1 - Passenger Cars: Line 3
- Trucks & Truck Tractors: Line 4
- Total: Line 11.

2. Data Element: AUTOMOBILE STOCK BY PROVINCE

Item: Table 5.2

Source: Statistics Canada Catalogue 53-219, 1960-86
Road Motor Vehicles - Registrations
Table 1 - Passenger Cars - Line 3.

4. Data Element: TOTAL NEW MOTOR VEHICLE SALES

Item: Table 5.3

Source: Statistics Canada Cansim Data Base
Canadian & U.S. Manufactured
Total D2373 Canadian Domestic D2369 NB D7522 NS D7521
Nfld D7519 Que D7523 Alta D7527 Sask D7526
PEI D7520 Ont D7524 BC D7528 Man D7525

6. Data Element: MOTOR VEHICLE MANUFACTURERS NEW PASSENGER CAR SALES

Item: Table 5.4

Source: Domestic: Motor Vehicle Manufacturers Sales Listings
Foreign: Automobile Importers of Canada Statistics
Note: Small: Subcompact+Compact+Volvo+Imports
Large: Intermediate+Full-Size
Industry: Foreign+Domestic
Domestic: AMC+Chrysler+Ford+GM+Volvo.

7. Data Element: NEW PASSENGER CAR REGISTRATIONS

Item: Table 5.5

Source: R.L. Polk & co. Ltd. Statistics.

8. Data Element: NEW TRUCKS BY SIZE BY PROVINCE
- Item: Table 5.6
- Source: Motor Vehicle Manufacturers Sales Listings.
- Note: Excludes imports.
11. Data Element: NEW TRUCK REGISTRATIONS BY PROVINCE BY SIZE
- Item: Table 5.7
- Source: R.L. Polk & Co. Ltd. Statistics.
12. Data Element: FACTORY SALES OF NEW TRUCKS BY ENGINE TYPE
- Item: Table 5.8
- Source: Motor Vehicle Manufacturers (Detroit) Sales Statistics.
- U.S. Exports + Canada Domestic
13. Data Element: RATIO OF POPULATION TO TOTAL AUTOMOBILE STOCK
- Item: Table 5.9
- Source: (Population/Automobile Stock).
14. Data Element: MOTOR VEHICLE REGISTRATIONS
TRUCKS & TRUCK TRACTORS
- Item: Table 5.10
- Source: Statistics Canada Catalogue 53-219.
15. Data Element: NEW CAR INDUSTRY AVERAGE FUEL CONSUMPTION (L/100KM)
- Item: Table 5.11
- Source: U.S. Dept. of Environment and
Canada Dept. of Transport

TABLE 5.12

1986 Provincial Sales Tax Rate and
Passenger Car Registration Fees

Prov.	Sales Tax Rate	Registration Fees (\$)	
NFLD	0.12	60	flat rate
NS	0.10	34-64	by weight
NB	0.11	30-96	by weight
PEI	0.10	36	flat rate
QUE	0.09	160-176	curb weight
ONT	0.07	54	flat rate
MAN	0.07	22-157	curb weight
SASK	0.07	48-85	by wheel base
ALTA	N/A	41	flat rate
BC	0.06	33-99	by weight

Source: Provincial Registration Offices.

TABLE 5.13

PROVINCIAL AD VALOREM FUEL TAX RATES (% OF RETAIL PRICE)

Product	NFLD	PEI	NS	NB	QUE	ONT	MAN	BC
Gasoline	22%	20%*	20%	20%	30%	20%	20%	20%
Propane								
(On Highway)	22%	20%*	20%	13%	30%	Exempt	20%(1)	Exempt
(Off Highway)	N/A	N/A	N/A	N/A	N/A	N/A	15%(1)	7%(10)
Diesel								
(On Highway)	26%	23%*	21%	23%	30%	27%	20%(2)	20% + 44c/litre
(Off Highway)	N/A	N/A	N/A	N/A	N/A	N/A	15%(2)	7%(10)
Aviation	.7c(3)	.7c(3)	2%(4)	3%	9%(6)	19% of diesel tax	4.5c(3)	7%(10)
Marine								
(Deep Sea)	1.0c	Exempt	2-1/2%(4)	Exempt(7)	Exempt	Exempt	15%(8)	7%(11)
(Coastal)	Exempt	22%(gas) 29%(diesel)	2-1/2%(4)	Exempt(7)	Exempt	Exempt	15%(8)	7%(11)
Locomotive	Exempt	29%(diesel)	Exempt	10%(9)	9%	31% of diesel tax	15%	7%(10)

* Effective 6-3-85

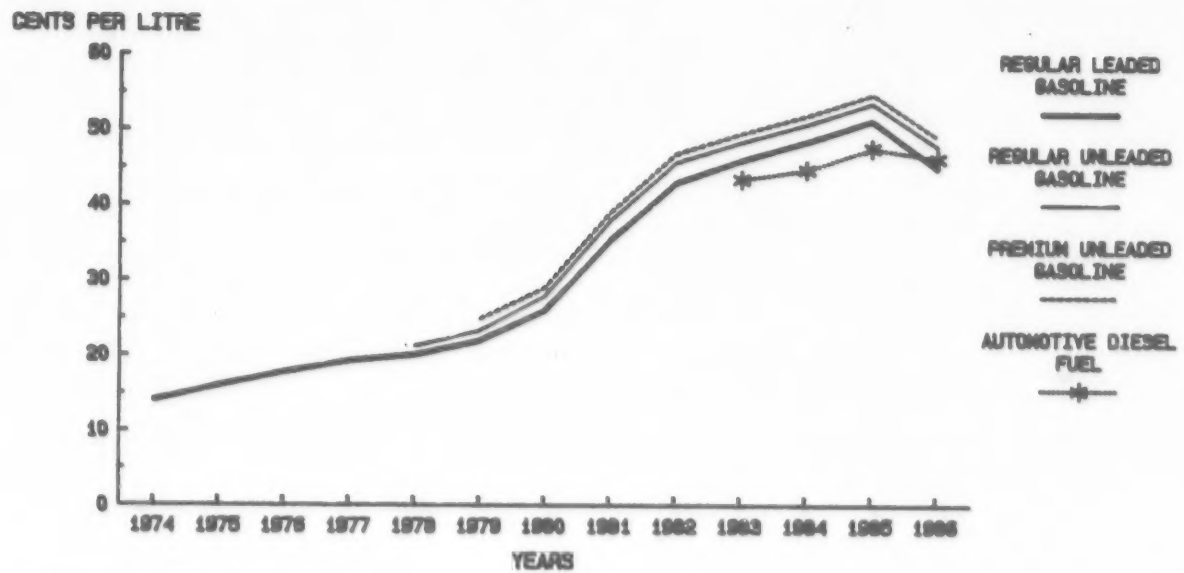
**Effective 16-3-85

Note: No road taxes are currently in place for compressed natural gas used as a motor fuel.
Published by the Intergovernmental Taxation Centre.

- (1) The retail price of propane is deemed to be 60% of the retail price of gas.
The rate of tax is applied to this 60% of retail price of gasoline.
- (2) The retail price of diesel is deemed to be 115% of the retail price of gasoline.
The rate of tax is applied to 115% of the retail price of gasoline.
- (3) Since there are several different prices for aviation fuel, depending upon the type of fuel, there is no percentage of selling price in some provinces, rather a straight amount in cents per litre is applied to the selling price in some provinces.
- (4) Rate is applied to the average retail price of diesel fuel.
- (5) 20% of the average retail price of gasoline.
- (6) 9% of the actual selling price of the Avgas.
- (7) Vessels over 300 tons are exempt. Vessels under 300 tons pay the 20% gas tax rate or the 23% diesel rate.
- (8) Off highway diesel rate used.
- (9) Locomotives used in mining and quarrying are exempt.
- (10) 7% of pretax selling price of gasoline.
- (11) 7% of pretax price of marine fuel.

FIG. 5.16

REPRESENTATIVE GASOLINE RETAIL PRICES 1974-1986



SOURCE: ENR ENERGY INFORMATION HANDBOOK
Representative is a weighted average of
prices from selected cities

TABLE 5.14

REPRESENTATIVE RETAIL PRICES
(CENTS PER LITRE)

	REGULAR LEADED GASOLINE	REGULAR UNLEADED GASOLINE	PREMIUM UNLEADED GASOLINE	AUTOMOTIVE DIESEL FUEL
1974	13.9			
1975	15.9			
1976	17.7			
1977	19.2			
1978	20.0	21.1		
1979	21.9	23.2	24.7	
1980	25.9	27.8	28.9	
1981	35.3	37.9	39.0	
1982	42.9	45.6	46.8	
1983	45.9	48.3	49.5	43.3
1984	48.4	50.7	51.9	44.6
1985	51.2	53.5	54.7	47.5
1986	44.8	47.7	48.9	46.1

SOURCE: EMR ENERGY INFORMATION HANDBOOK
Representative is a weighted average of prices from selected cities.

TABLE 5.15

PROVINCIAL FUEL TAX RATES (cents per litre)								
	NFLD	PEI	NS	NB	QUE	ONT	MAN	BC
Regular Gas (On Highway)	9.80	8.90	8.30	7.60	14.40	8.30	8.90	9.64
Unleaded Gas (On Highway)	9.80	8.90	8.30	8.10	14.40	8.30	8.00	7.64
Premium Unleaded (On Highway)	9.80	8.90	8.30	8.50	14.40	8.30	8.00	9.64
Diesel (On Highway)	12.10	10.50	8.60	8.10	12.45	9.90	9.90	8.08
(Off Highway)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	2.67
Propane (On Highway)	9.80	8.90	8.30	5.00	8.25	n/a	5.70	n/a
(Off Highway)	n/a	n/a	n/a	n/a	8.25	n/a	4.00	2.67
Locomotive	n/a	10.50	n/a	3.50	R	3.10	9.20	2.67
Marine	1.00	n/a	1.00	n/a	n/a	n/a	7.50	7.00
Aviation	0.70	0.70	0.80	2.00	R	1.88	4.80	2.67

Provided by Department of Finance, Reciprocal Taxation Section:
Provincial fuel taxes are the most recent fuel tax rates applicable
to federal departments and agencies in participating provinces.

R - 9% Retail Sales Tax

TABLE 5.16

NATURAL GAS FUELING STATION PUMP PRICES
(cents per kilogramme)

	Aug/85	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Oct	Nov	Dec	Jan/87	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct
Vancouver	42.0	42.0	42.0	42.0	44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9	41.9	42.5	42.5	42.5	42.5	42.5	42.5	42.5	42.5	42.5	42.5	42.5	42.5	42.5
Calgary	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0
Toronto	43.9	43.9	43.9	43.9	43.9	45.9	45.9	45.9	45.9	45.9	45.9	45.9	45.9	41.9	41.9	41.9	41.9	41.9	41.9	41.9	41.9	41.9	41.9	41.9	41.9	41.9
Ottawa	44.9	44.9	44.9	46.9	46.9	46.9	46.9	46.9	46.9	46.9	46.9	46.9	46.9	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8
Montreal	59.5	59.5	59.5	59.5	59.5	59.5	59.5	59.5	59.5	59.5	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1

Source: Petroleum Products Marketing Division, ENR

TABLE 5.17

COMMERCIAL (POSTED) PRICES FOR PROPANE & REGULAR UNLEADED GASOLINE

	Dec/81	Dec/82	Dec/83	Dec/84	Dec/85	May/86	Jun/87
VANCOUVER							
Propane	28.1	28.8	31.2	30.4	30.4	30.4	22.2
Gasoline	40.2	46.1	49.3	53.5	58.0	51.1	52.9
CALGARY							
Propane	18.8	23.9	26.1	28.0	28.0	28.0	18.0
Gasoline	33.8	38.0	40.0	44.2	48.0	36.5	48.3
REGINA							
Propane	28.3	27.2	28.5	28.5	28.5	28.5	28.2
Gasoline	40.1	38.1	40.0	44.1	47.9	40.9	41.6
WINNIPEG							
Propane	26.2	31.4	35.2	35.2	35.5	35.5	28.4
Gasoline	40.0	44.8	47.8	52.1	56.3	46.9	49.4
TORONTO							
Propane	22.9	26.9	28.9	28.9	28.9	28.9	22.9
Gasoline	40.9	46.5	49.2	53.7	57.4	51.5	46.4
MONTREAL							
Propane	35.9	41.6	36.3	36.3	36.3	36.3	38.1
Gasoline	48.4	55.4	53.9	58.8	61.3	53.8	57.7
HALIFAX							
Propane	29.7	35.2	37.6	42.4	45.6	45.4	40.5
Gasoline	38.8	46.9	49.3	54.2	57.2	47.9	51.1

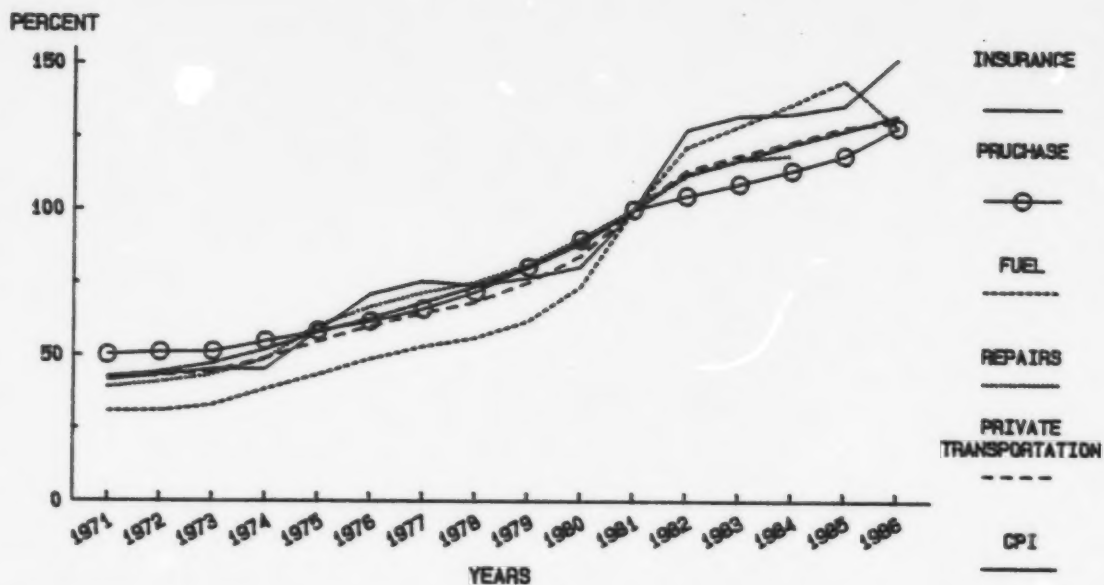
Source: EMR, Petroleum Products Marketing Division. Including all road taxes. Prices represent month-end values.

Note: Propane: Prices to commercial customers at distributor pumps.

Gasoline: Estimated theoretical pump prices are based on the posted dealer tankwagon price plus an estimated dealer margin, and includes provincial sales tax, federal sales tax but excludes the federal excise tax which is refundable for commercial purposes. Prices shown in the versions of this report prior to September 1982, do not have the estimated dealer margin. Commercial gasoline values in no way reflect the trade discounts that would apply to commercial users.

FIG. 5.17

CONSUMER PRICE INDEX FOR PRIVATE TRANSPORTATION AND ITS COMPONENTS-NATURALIZED TO CPI



SOURCE: STATISTICS CANADA CANSIM DATA BASE
CPI 1981=100

TABLE 5.18

CONSUMER PRICE INDEX
FOR PRIVATE TRANSPORTATION AND ITS COMPONENTS
(NATURALIZED TO CPI)

	INSURANCE	PURCHASE	FUEL	REPAIRS	PRIVATE TRANSP.	CPI
1971	41.33	49.93	30.63	38.92	41.93	42.34
1972	43.23	50.92	30.87	40.75	42.99	44.18
1973	45.23	51.12	32.96	43.29	44.40	47.21
1974	45.23	54.74	38.43	48.71	48.94	51.94
1975	58.42	58.32	43.49	60.13	54.59	57.83
1976	70.90	61.66	48.89	66.68	60.13	62.68
1977	75.37	65.78	53.08	71.54	64.42	67.97
1978	73.83	71.64	56.05	75.03	68.23	73.60
1979	76.63	80.30	61.77	81.16	74.93	80.00
1980	80.44	89.68	73.52	90.16	84.13	88.28
1981	100.00	100.00	100.00	100.00	100.00	100.00
1982	127.30	104.68	121.39	111.72	113.36	112.05
1983	132.18	108.82	128.80	117.05	118.69	117.06
1984	133.00	113.40	136.30	118.70	123.20	122.30
1985	135.90	118.60	144.40	N/A	128.40	127.20
1986	151.70	128.40	128.40	N/A	130.40	132.40

SOURCE:

Statistics Canada Cansim Data Base.
 Consumer Price Index Base: 1981=100
 Private Transportation D490358; Purchase D490359; Fuel D490363;
 Maintenance (n/a after 1984); Insurance D490376; CPI all items D490000.

TABLE 5.19

SALESWEIGHTED GASOLINE PRICES BY FUEL TYPE
(cents per litre)

	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
REGULAR LEADED GASOLINE PRICES										
NFLD	22.88	24.36	26.09	30.50	40.44	48.00	52.70	55.24	59.80	54.80
MAR	20.45	22.24	23.81	27.64	37.38	45.18	50.11	52.79	56.03	50.57
QUE	18.93	19.90	21.11	26.27	36.76	49.17	53.09	54.87	57.72	50.80
ONT	19.64	20.34	22.54	26.60	35.85	42.27	43.74	46.13	48.00	42.30
MAN	18.79	19.70	21.08	25.37	34.43	39.47	45.66	46.50	50.52	47.70
SASK	19.20	20.85	22.10	26.17	36.09	36.99	38.89	41.96	44.48	35.80
ALTA	17.62	17.02	17.79	21.06	28.97	34.38	38.98	40.93	43.66	38.30
BC	18.89	19.83	21.52	26.07	36.19	42.22	45.99	49.97	53.79	44.80
CANADA	19.55	20.53	22.14	26.20	35.45	42.91	46.08	48.36	51.06	44.80
REGULAR UNLEADED GASOLINE PRICES										
NFLD	25.41	27.22	32.29	42.72	50.38	55.27	57.77	62.51	57.70	
MAR	23.23	24.95	29.28	39.35	47.15	52.21	54.22	58.08	52.80	
QUE	21.07	23.79	28.90	39.94	53.19	55.72	57.71	60.32	54.60	
ONT	20.84	22.43	27.02	38.62	45.10	46.37	48.54	50.84	45.50	
MAN	21.75	23.34	27.74	36.26	43.41	47.51	48.29	51.78	48.90	
SASK	18.13	19.15	22.93	37.92	40.97	40.62	43.79	46.42	38.00	
ALTA	20.93	22.80	27.96	31.00	36.34	40.84	42.75	45.80	40.40	
BC	21.50	23.94	33.58	38.45	39.91	48.39	51.84	55.69	47.20	
CANADA	21.61	23.45	28.07	38.02	45.62	48.48	50.65	53.54	47.70	
PREMIUM GASOLINE PRICES										
NFLD				31.80	43.64	51.39	56.16	58.81	63.44	58.60
MAR				30.26	40.14	48.09	53.26	55.45	59.07	53.93
QUE				29.63	40.76	54.19	57.11	59.13	61.73	56.00
ONT				28.01	39.53	46.26	47.43	49.72	53.77	46.50
MAN				28.71	36.94	41.76	48.42	49.22	52.28	50.00
SASK				23.95	38.72	39.72	41.58	44.82	47.57	39.30
ALTA				28.83	32.05	37.28	41.89	43.76	46.80	41.60
BC				28.54	39.52	45.29	49.30	52.87	56.73	48.50
CANADA				29.11	38.90	46.69	49.55	51.87	54.71	48.90

SOURCE: EMR Energy Information Handbook-Prices.
Ethyl Canada Sales.

Note: Monthly sales times monthly price. Total of these divided
by total of yearly sales equals sales-weighted price.

Note: After 1985 data is simply the representative retail price in each pro
found in the EMR energy handbook prices section. (7.5-7.7)

DATA DICTIONARY
FUEL TAXES AND FUEL PRICES

1. Data Element: 1986 PROVINCIAL SALES TAX RATE 7 PASSENGER CAR REGISTRATION FEES
Item: Table 5.12
Source: EMR-TED.
2. Data Element: PROVINCIAL AD VALOREM FUEL TAX RATES (% OF RETAIL PRICE)
Item: Table 5.13
Source: Intergovernmental Taxation Centre.
3. Data Element: REPRESENTATIVE RETAIL PRICES, 1974-1986
Item: Table 5.14
Source: EMR Energy Information Handbook - Prices Section.
Regular Leaded Gasoline-Table 7.5B-Canada
Regular Unleaded Gasoline-Table 7.6B-Canada
Premium Unleaded Gasoline-Table 7.7B-Canada
Automotive Diesel Fuel-Table 7.9B-Canada.
4. Data Element: PROVINCIAL FUEL TAX RATES
Item: Table 5.15
Source: Department of Finance, Reciprocal Taxation Section.
6. Data Element: NATURAL GAS FUELING STATION PUMP PRICES
Item: Table 5.16
Source: Petroleum products Marketing Division, EMR.
7. Data Element: COMMERCIAL POSTED PRICES FOR PROPANE & REGULAR LEADED GASOLINE
Item: Table 5.17
Source: EMR, Petroleum Products Marketing Division.
8. Data Element: CONSUMER PRICE INDEX FOR PRIVATE TRANSPORTATION AND ITS COMPONENTS
Item: Table 5.18
Source: Statistics Canada Cansim Data Base - Consumer Price Index: 1981=100
Private Transportation D490358; Purchase D490359; Fuel D490363;
Maintenance (n/a after 1984); Insurance D490376; CPI all items
D490000.

9. Data Element: SALESWEIGHTED GASOLINE PRICES BY FUEL TYPE BY PROVINCE

Item: Table 5.19

Source: EMR Energy Information Handbook--Prices-Table 7.6 to 7.9
Ethyl Canada Motor Gasoline Sales

Note: $(\text{sales}) \times (\text{price})$ for each month
 $(\text{total of Jan thru Dec}) / (\text{yearly sales}) = \text{salesweighted price.}$

FIG. 5.18
NEW PASSENGER CAR
FLEET FUEL CONSUMPTION

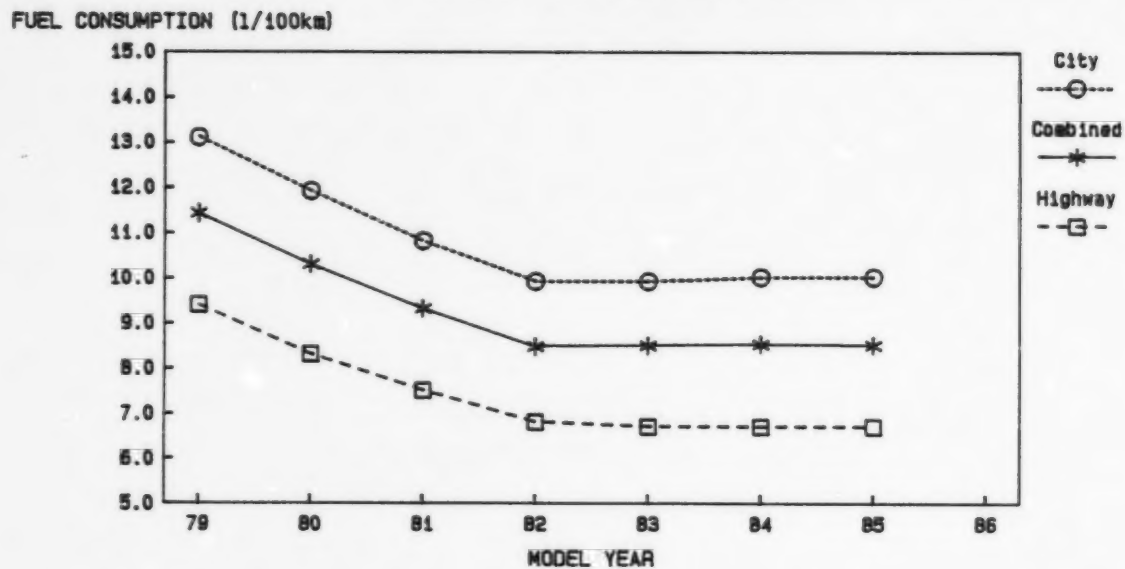


FIG. 5.19
NEW PASSENGER CAR AVERAGE WEIGHT

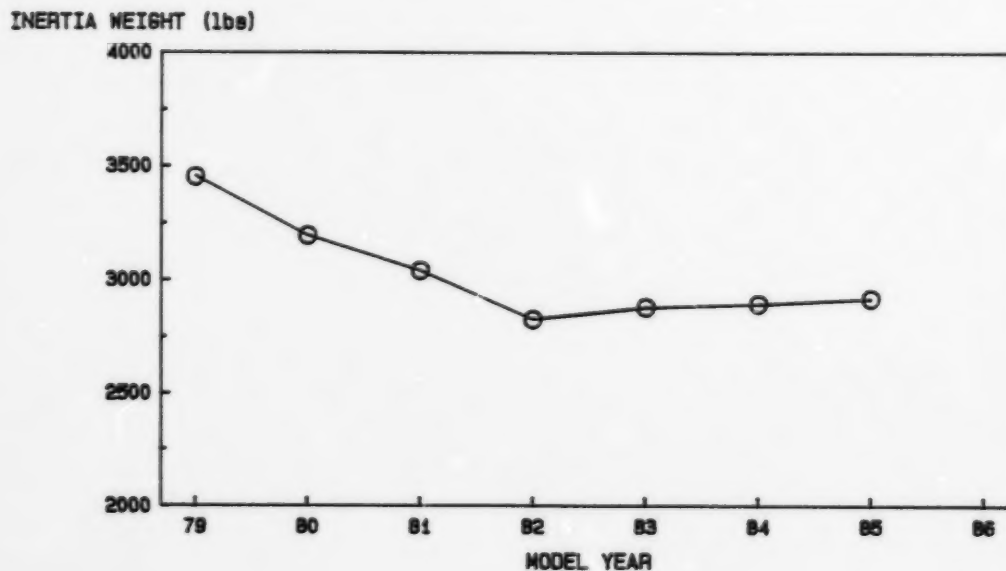


FIG. 5.20

**SALES FRACTIONS
FRONT VS. REAR
WHEEL DRIVE**

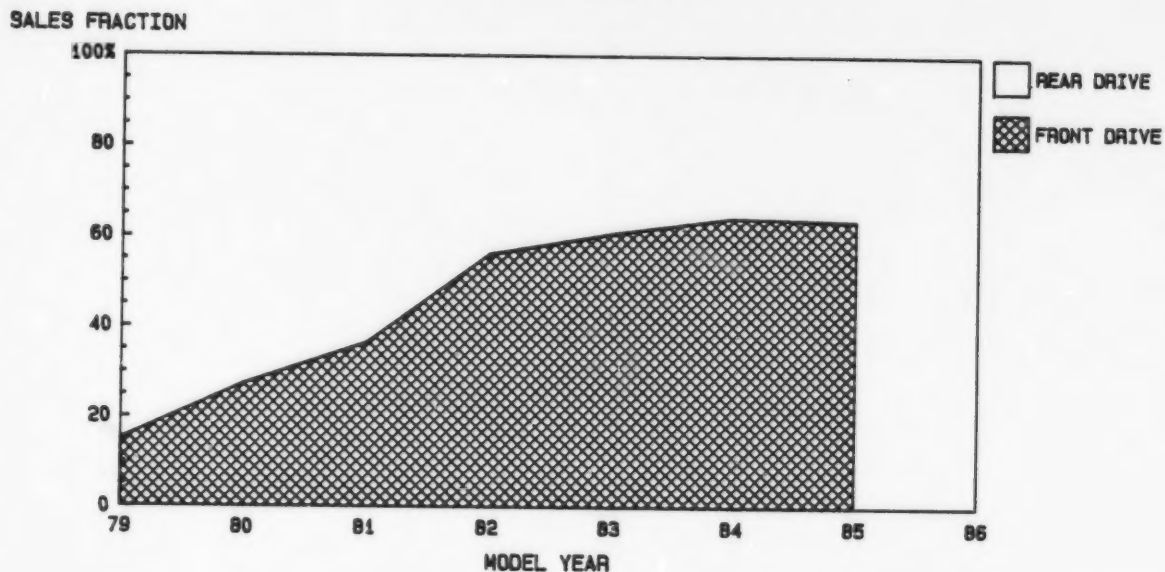


FIG. 5.21

**SALES FRACTION:
AUTO VS. MANUAL
TRANSMISSION**

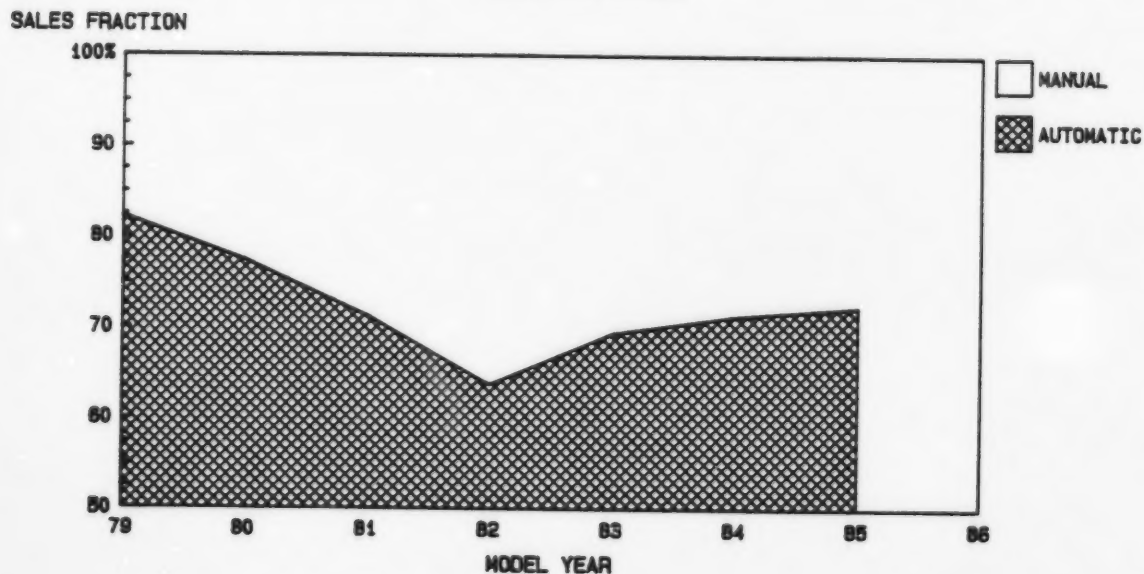
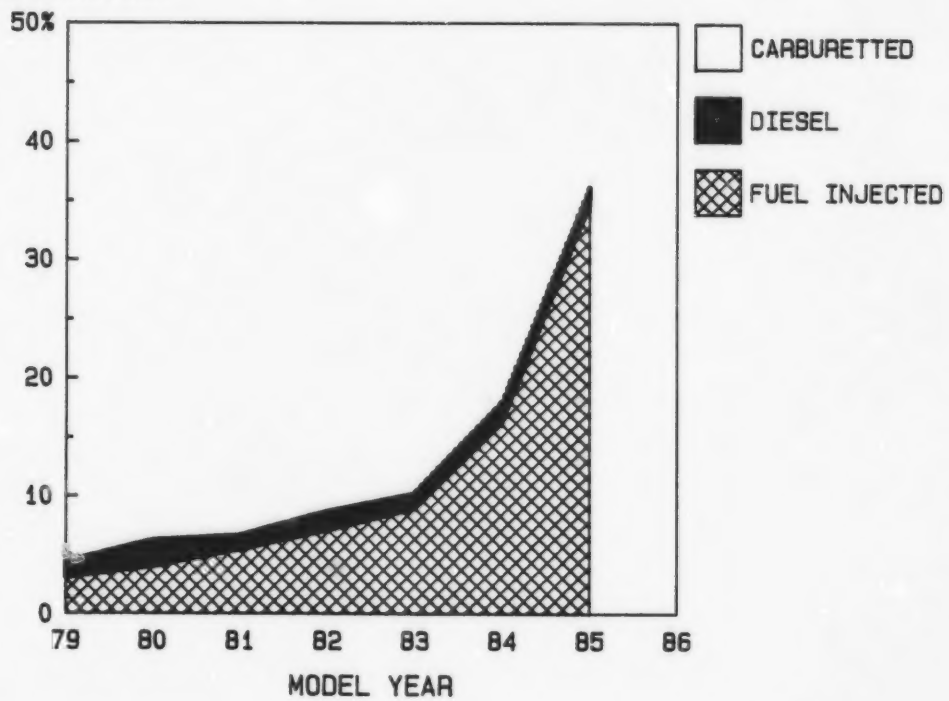


FIG. 5.23

SALES FRACTION:

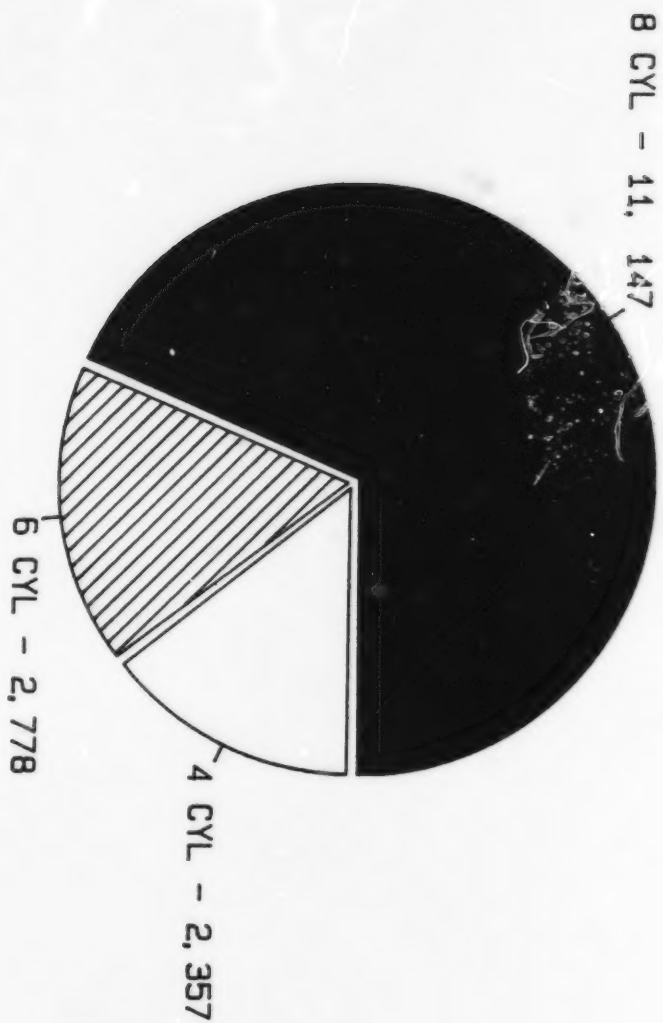
CARBURETTED, FI AND DIESEL

SALES FRACTION



PROpane VEHICLE PROGRAM CONVERSIONS - VEHICLE SIZE TO 31 MARCH 1986

FIG. 6.1

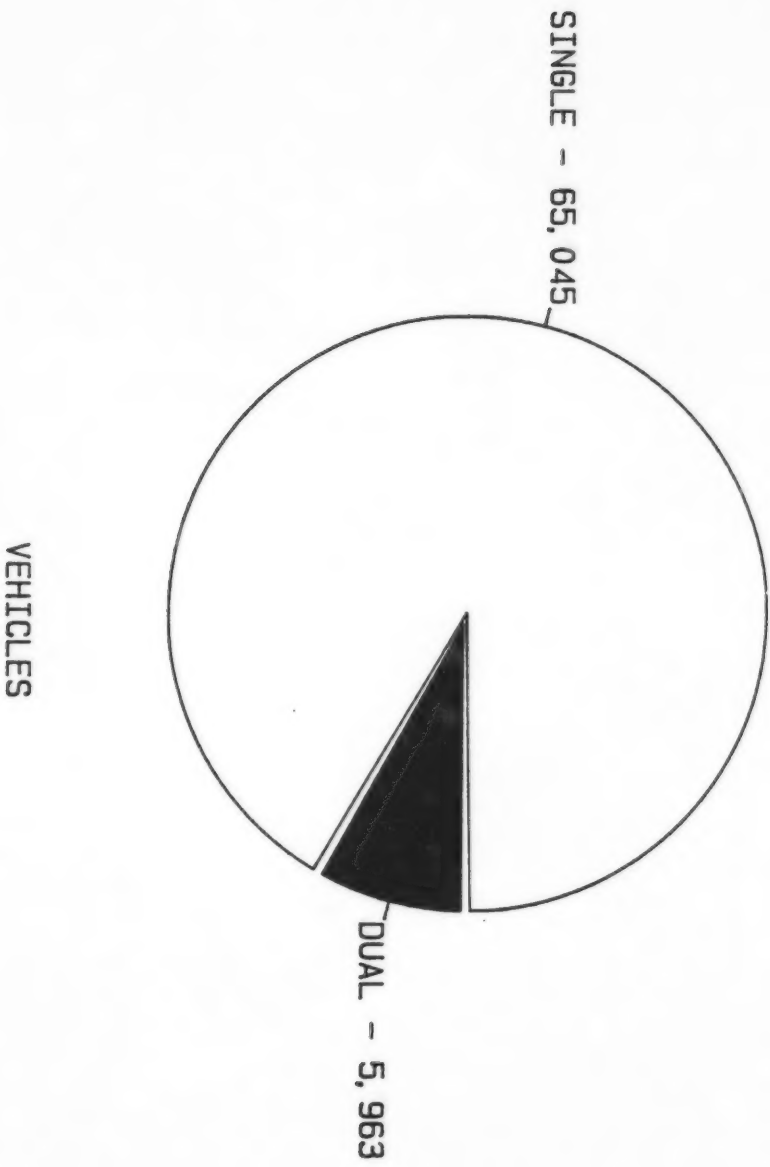


AUTOMOBILES

SOURCE: EMR/TED

FIG. 6.2

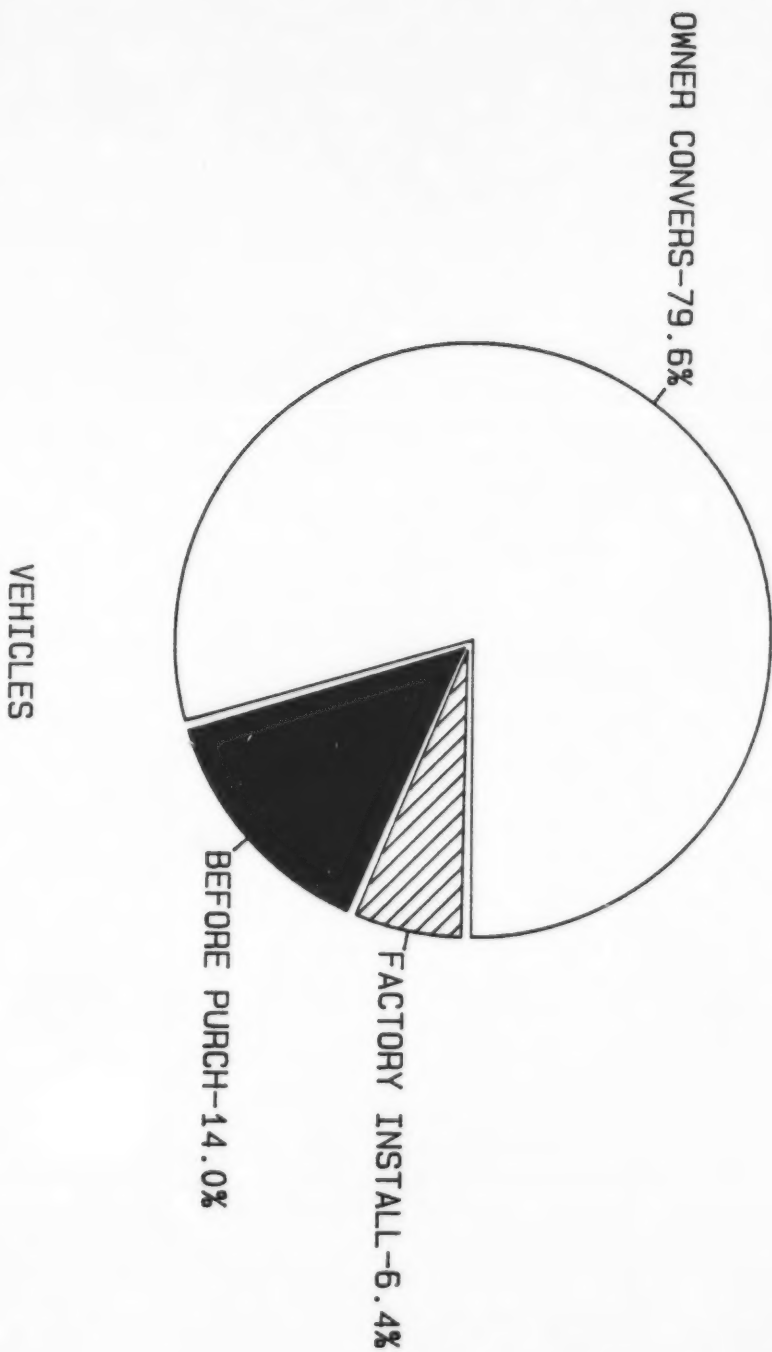
PROPANE VEHICLE PROGRAM
CONVERSIONS - FUEL TYPE
TO 31 MARCH 1986



SOURCE: EMR/TED

FIG. 6.3

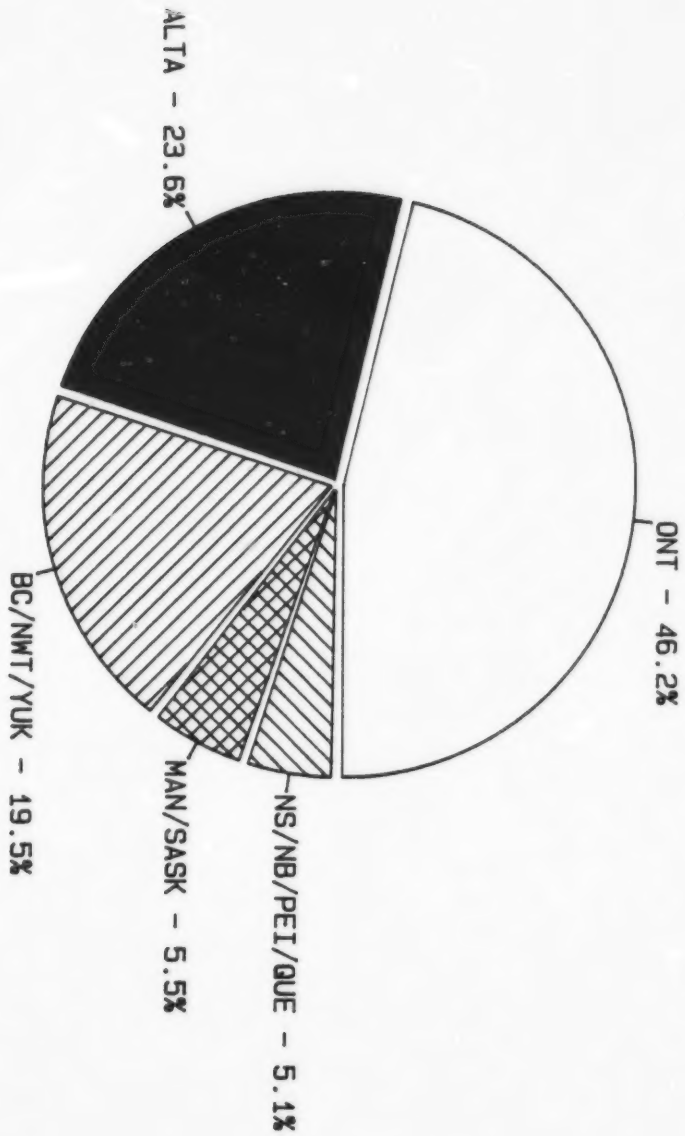
PROPANE VEHICLE PROGRAM
CONVERSION TYPE
TO 31 MARCH 1986



SOURCE: EMR/TED
Total Numbers of Conversions: 16,282

FIG. 6.5

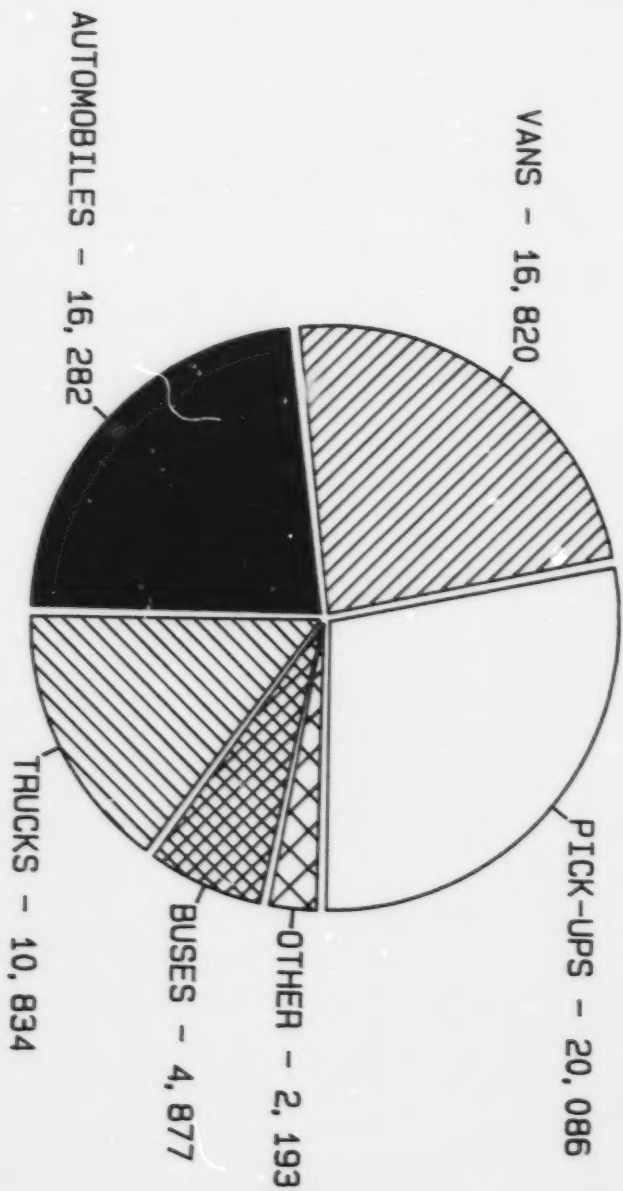
PROPANE VEHICLE PROGRAM VEHICLES CONVERTED-REGIONAL DISTRIBUTION TO 31 MARCH 1986



Source: EMR/TED
Total Number of Conversions: 16,282

FIG. 6.4

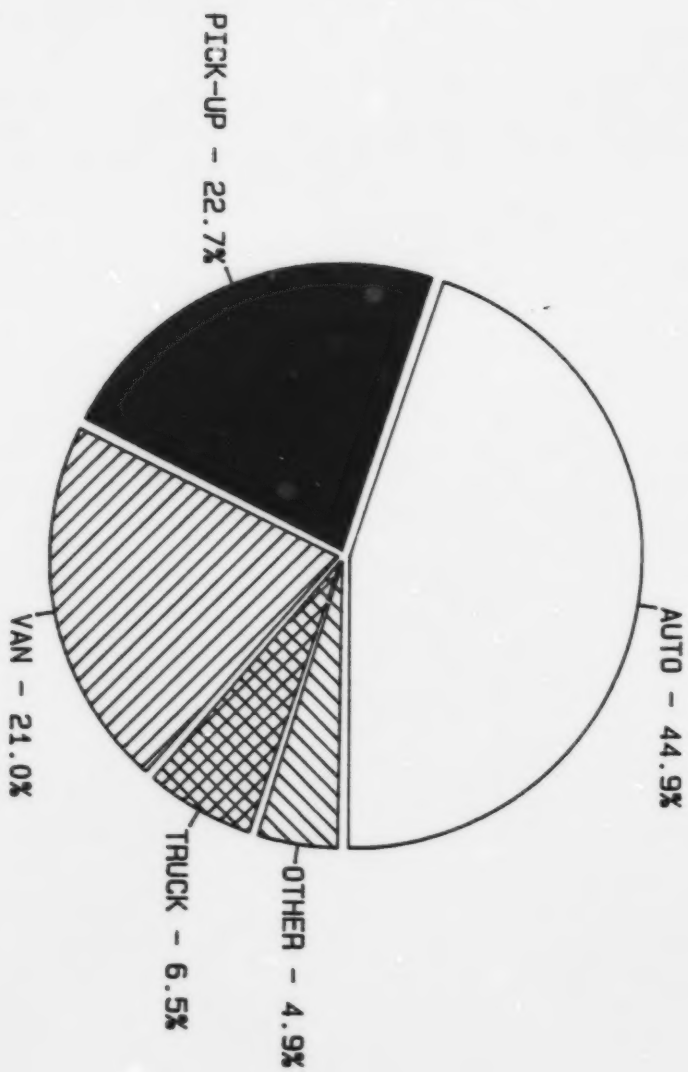
PROPANE VEHICLE PROGRAM VEHICLE SIZE TO 31 MARCH 1986



SOURCE: EMR/TED

FIG. 6.6

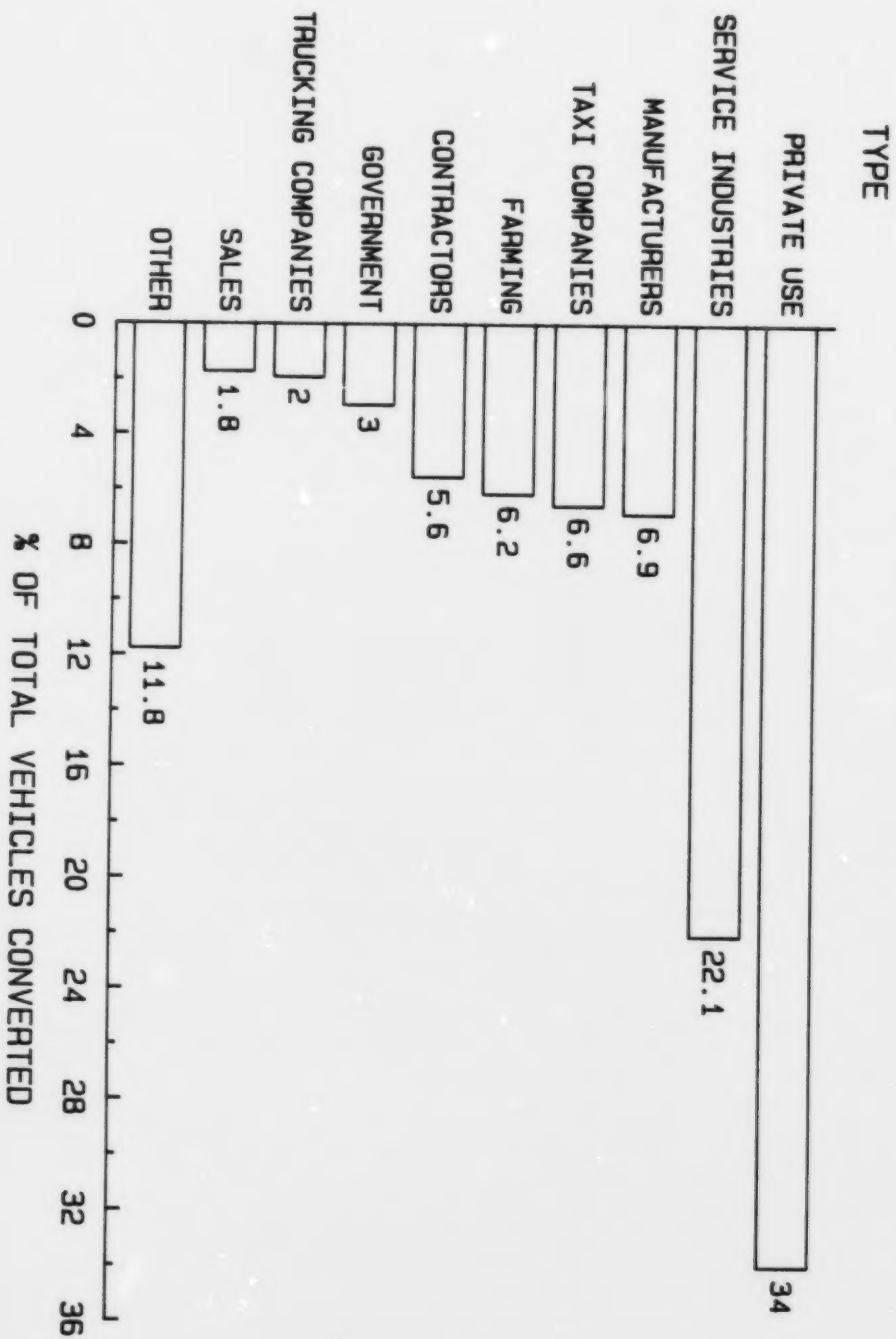
**NATURAL GAS VEHICLE PROGRAM
VEHICLES CONVERTED - VEHICLE TYPE
TO 31 AUGUST 1986**



Source: EMR/TEO
Number of Conversions: 9,585

NATURAL GAS VEHICLE PROGRAM VEHICLES CONVERTED - CLAIMANT TYPE TO 31 AUGUST 1986

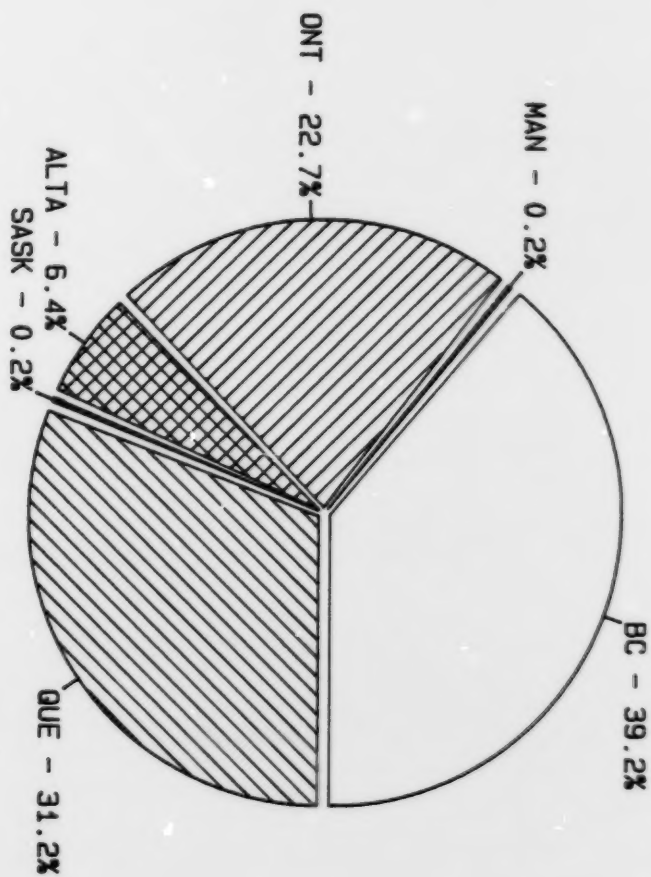
FIG. 6.7



Source: EMR/TED
Total Number of Conversions: 9,585

FIG. 6.8

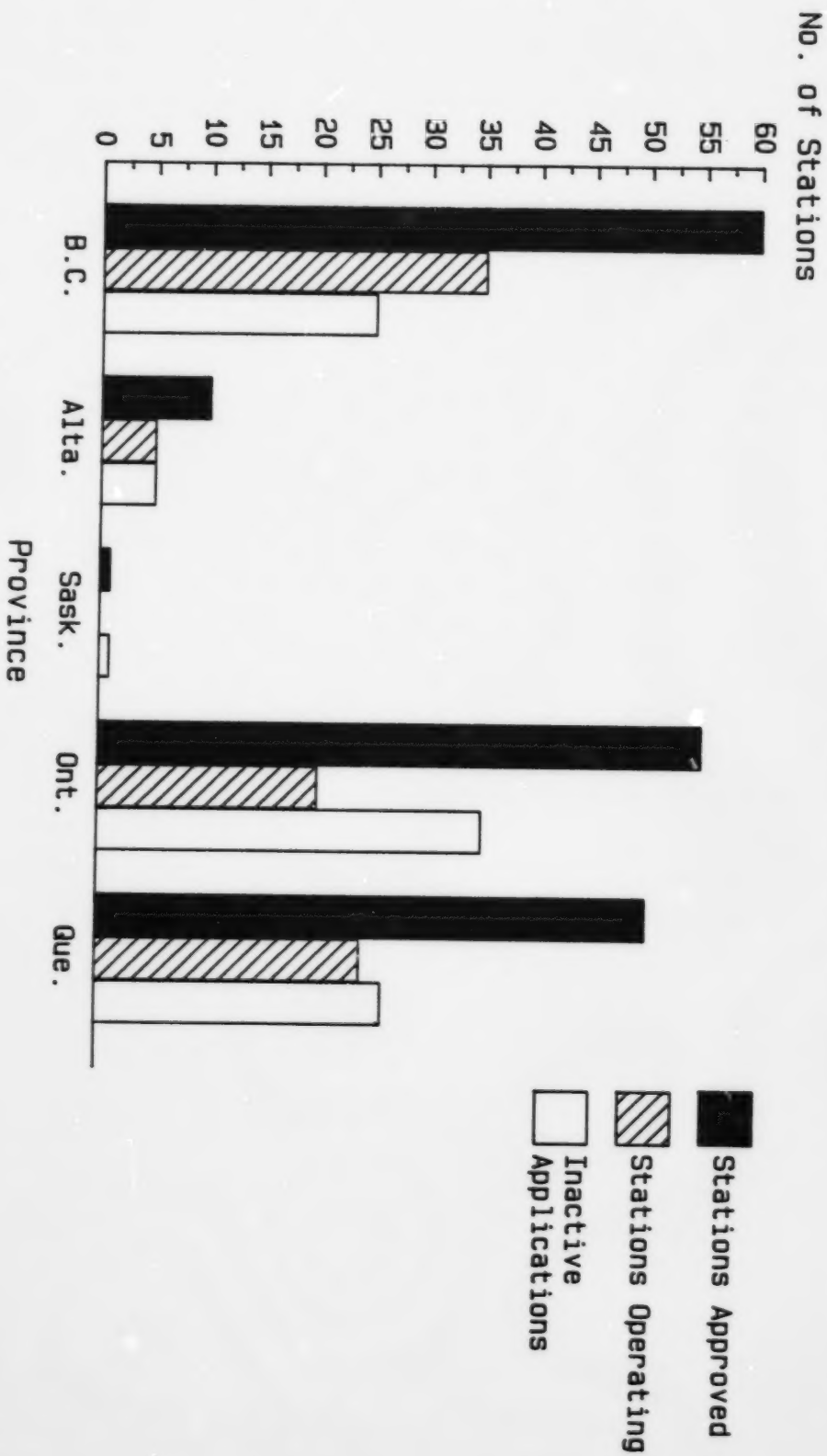
NATURAL GAS VEHICLE PROGRAM VEHICLES CONVERTED - REGIONAL DISTRIBUTION TO 31 AUGUST 1986



Source: EMR/TED
Number of Conversions: 9,585

FIG. 6.9

NATURAL GAS FUELING STATION PROGRAM Distribution by Province August 31, 1986



Source: EMR/TED

SOURCES

FUEL SUPPLY, DISPOSITION & CONSUMPTION:

GENERAL:

Quarterly Report on Energy Supply - Demand in Canada:
57-003 1978 to present
57-207 1958-1977

Detailed Report on Supply & Demand of energy by type of fuel by province by year by sector. 1958-1977 in 10(9) btu's and natural units. Quarterly (petroleum only) from 1978 to present in natural units and terajoules.

Source: Compilation from various Statistics Canada series.

GASOLINE CONSUMPTION:

1. CANSIM D333515, Net Sales in Canada

Supply & Disposition as Reported by Canadian Refineries and Selected Major Distributors of Motor Gasoline,
Monthly, 1958 to present in cubic metres.

Source: Statistics Canada - refineries (Refined Petroleum Products 45-004)

2. ETHYL CANADA, Monthly Report of Gasoline Sales in Canada by fuel type, by province, in cubic metres.

Premium: 1972 to present

Regular: 1972 to present (1977-1979 in '000 Imp.Gals.)

Unleaded: 1975 to present (1980 to present in cu.metres)

Total: 1972 to present

Source: Survey of Major Refineries.

ETHYL CANADA, Monthly Report of Canadian Gasoline Sales Through Licensed Retail Outlets, 1979 to present, by province, by fuel type. 1979 in '000 imperial gallons. 1980 to present in cubic metres.

Source: Survey of Retail Outlets.

ETHYL CANADA, Gasoline Octane Quality Report, Monthly, by Region, by fuel type, May 1979 to present.

Source: Analysis by Ethyl Laboratory of samples collected from selected retail outlets.

3. ENERGY INFORMATION HANDBOOK, Representative Retail Prices of gasoline, monthly by province, by fuel type (cents per litre).

Regular Leaded - January 1971 to present
Regular Unleaded - January 1978 to present
Premium Unleaded - January 1979 to present

Source: Statistics Canada Market Field Surveys.

4. ROAD MOTOR VEHICLES - FUEL SALES, Gross Sales of Gasoline by Province and Territory, yearly from 1965 to present (litres).

Source: Statistics Canada Catalogue 53-218.

5. GASOLINE AND PROPANE FUEL PRICES AND VOLUMES, Kent Marketing Services provides detailed volume and price information on all grades of gasoline and vehicle propane by region, and for many areas by station. Gasoline information is available on-line through I.P. Sharp's timesharing service.

DIESEL FUEL OIL:

1. CANSIM D334415, Net Sales in Canada

Supply and Disposition as Reported by Canadian Refineries and Selected Major Distributors of Diesel Fuel Oil, monthly, in cubic metres.

Source: Statistics Canada-Refineries (Refined Petroleum Products 45-004).

2. ROAD MOTOR VEHICLES - FUEL SALES

Net Sales of Diesel Oil by Province and Territory, yearly from 1965 to present (litres).

Source: Statistics Canada Catalogue 53-218.

LIQUEFIED PETROLEUM GAS:

ROAD MOTOR VEHICLES - FUEL SALES, Net Sales of Liquefied Petroleum Gas by Province and Territory, yearly from 1965 to present (litres).

Source: Statistics Canada Catalogue 53-218.

FUEL CONSUMPTION/FUEL ECONOMY

CANADA:

1. New Car Fuel Consumption (test procedure)
Transport Canada Fuel Consumption Guide.
2. Average New Car Fuel Consumption
Transport Canada compiles data submitted by each manufacturer on fuel consumption and sales of new cars based on test procedure.
3. On-Road Fuel Consumption
Statistics Canada Fuel Consumption Survey, Quarterly. Cars, light trucks and vans, by model year by province.

UNITED STATES:

U.S. Fuel Economy Progress: New Cars, Standards, On-Road, and Fleet Average, 1967 to present.

Source: U.S. Environmental Protection Agency.

MOTOR VEHICLE SALES, REGISTRATIONS AND PRODUCTION

1. CANSIM: D2373 Total Passenger Car Sales, (New Motor Vehicle Sales) monthly from 1961.
D2369 Passenger Car Sales, Canadian and U.S. Manufactured (New Motor Vehicle Sales), monthly from 1961.

Passenger Car Sales, Canadian and U.S. Manufactured by Provinces (New Motor Vehicle Sales), monthly from 1961.

D7519 Nfld.	D7524 Ont.
D7520 P.E.I.	D7525 Man.
D7521 N.S.	D7526 Sask.
D7522 N.B.	D7527 Alta.
D7523 Que.	D7528 B.C.

Source: Statistics Canada Catalogue 63-007.

D125000 Production of Motor Vehicles in Canada, monthly from 1970 Canada Total All Vehicles.

Source Motor Vehicle Manufacturers Assoc. of Canada.

2. MOTOR VEHICLE MANUFACTURERS ASSOCIATION OF CANADA (MVMA):
Monthly sales from 1972 by calendar year, by province, by manufacturer and model for new automobiles and trucks.
3. R.L. POLK AND CO. LTD.
Monthly registrations from 1974 by calendar year, by manufacturer and model for new automobiles and light trucks; also a series is collected by model year on computer tapes.
4. MVMA (DETROIT) FACTORY SALES OF NEW TRUCKS BY ENGINE TYPE:
(Domestic Only) by month, by size class from 1975.
5. R.L. POLK AND CO. LTD. NEW TRUCKS BY ENGINE TYPE:
Yearly by province by size class diesel from 1965 and gasoline from 1976.
6. ROAD MOTOR VEHICLES - REGISTRATIONS:
Annual vehicle stock by province for passenger cars, trucks and truck-tractors, buses, motorcycles, mopeds and other (firetrucks and ambulances).
Sources: Statistics Canada Catalogue 53-219.
7. DISAGGREGATE VEHICLE STOCK BY PROVINCE:
Tape to be produced for T.E.D. once yearly by Statistics Canada based on provincial registration files.

DEMOGRAPHIC INFORMATION

POPULATION

Statistics Canada:

1. Census: Population by Province from 1960 to 1995.
Catalogues: 91-201 to 204 estimated.
Catalogues: 91-520 to 522 projections.
2. Number of Households by Province, yearly from 1961-1991.
Catalogues 91-522 and 64-202.
3. Number of Families by Province from 1971 to 1991.
Catalogues: 91-522 and 91-204.
4. Average Size of Family by Province from 1971.
Catalogues: 91-204, 91-522 and 93-821.

RAIL

Statistics Canada:

Railway Transport

Part III-Equipment, Track and Fuel Statistics;

Part IV-Operating and Traffic Statistics.

1971 to 1981

Catalogues 52-209 and 52-210.

1982 to 1983

Catalogue 52-215, Railway Transport in Canada, General Statistics.

Traffic Trends; Common Carrier Railways in Canada. Annual freight car kms. hauled, loaded and empty; revenue passenger km; revenue passengers carried, non-revenue and revenue freight tonne-km.

AIR

Statistics Canada:

Air Carrier Operations in Canada 1971 to present.

Catalogue 51-002.

From 1981 to present Class 5 Specialty Carriers are reported in Catalogue 51-206 while Scheduled Foreign Carriers have been eliminated totally.

Passenger tonne-km; goods tonne-km; turbo fuel consumption; gasoline fuel consumption; km. flown; no. of passengers; passenger km.

MARINE

Statistics Canada:

Water Transportation from 1975. Catalogue 54-205.

For-Hire; Private; All Carriers. Fuel Oil, Gasoline, Coal, Lubricating Oils, Other.